RESTRICTED

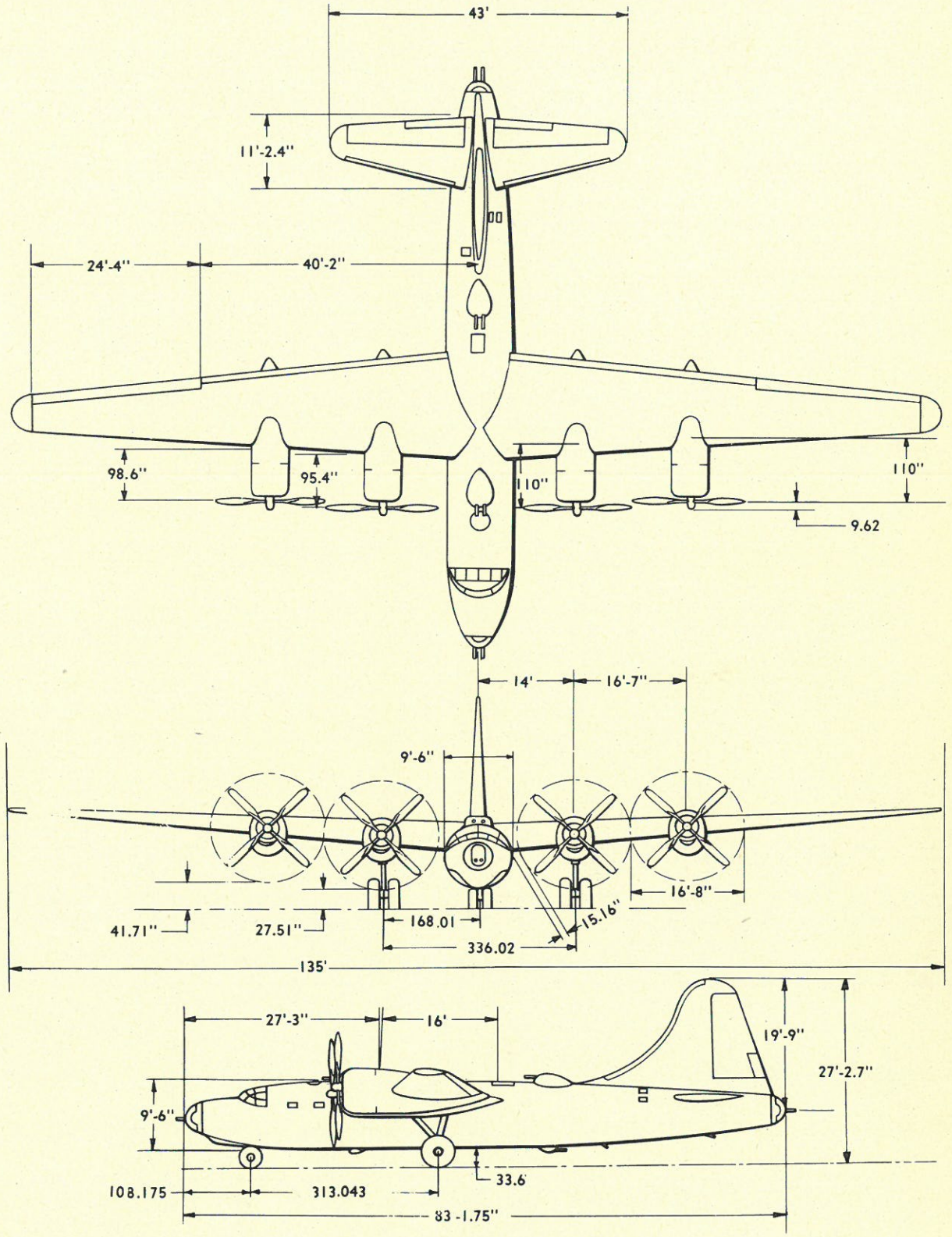
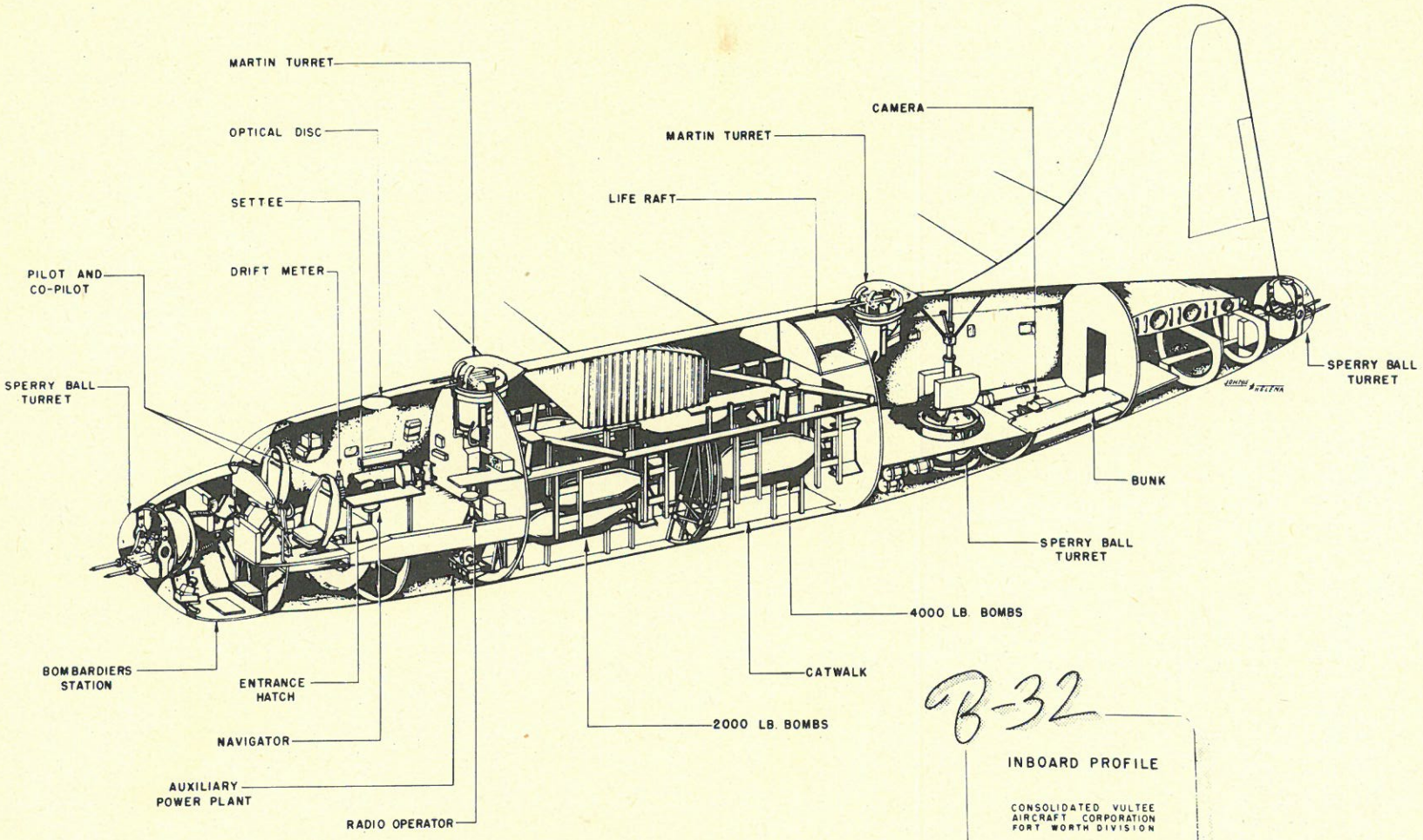


Figure 1 — *Three Views B-32*

FW-0173



B-32

INBOARD PROFILE

CONSOLIDATED VULTEE AIRCRAFT CORPORATION FORT WORTH DIVISION

MODEL 33 PHOTO NO 15-029

RESTRICTED

1. Outboard Generator (200 Amps.) Type P-2
2. Limiter Block (4 Links)
3. Inboard Generator (300 Amps.) Type R-1
4. Limiter Block (6 Links)
5. Limiter Blocks (1 Block, 4 Links) (1 Block, 6 Links)
6. Co-Pilot's Panel
7. Limiter Blocks (6 Links each)
8. Liason Transm., Battery & Trailing Antenna
9. Auxiliary Power Unit
10. Hydro Pump
11. Limiter Blocks (6 Links each)
12. Limiter Blocks (4 Links each)
13. Nose Fuse
14. Limiter Block (6 Links)
15. Limiter Block (4 Links)
16. Camera
17. Limiter Block (4 Links)
18. Turret Load
19. Turret Load
20. Limiter Block (4 Links)

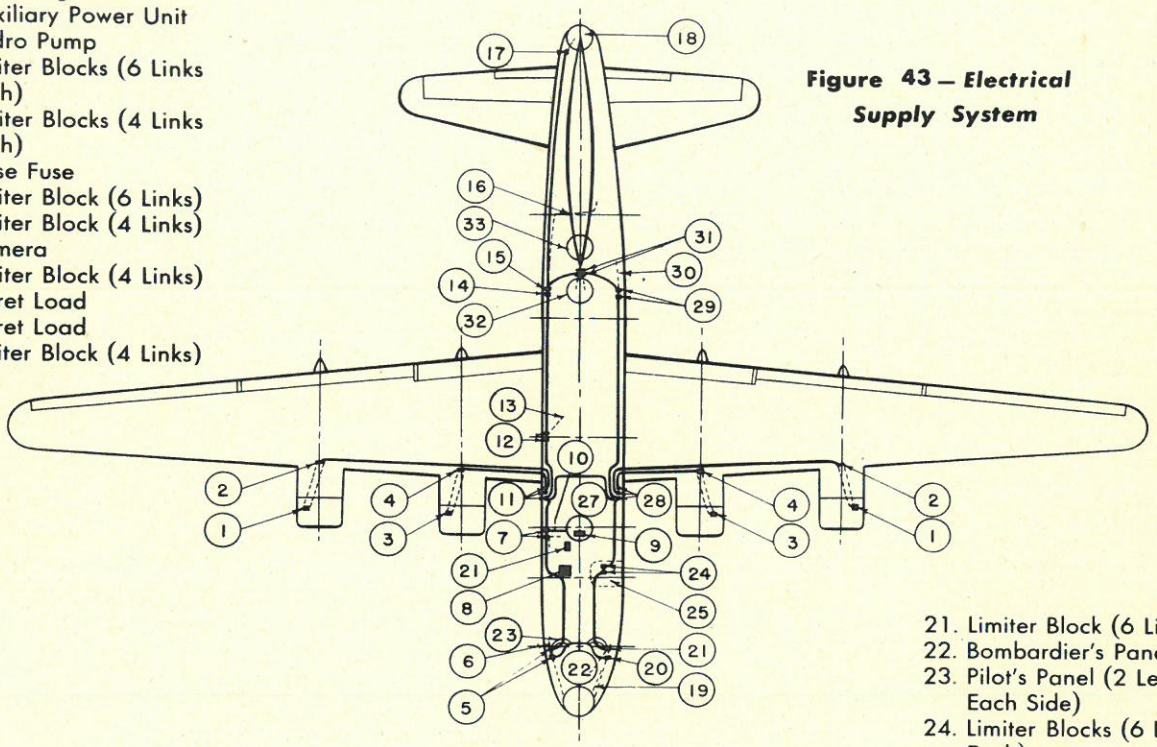
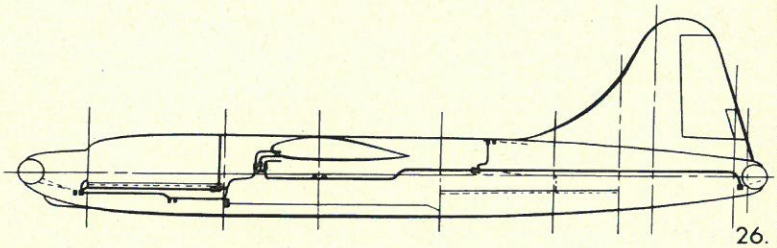
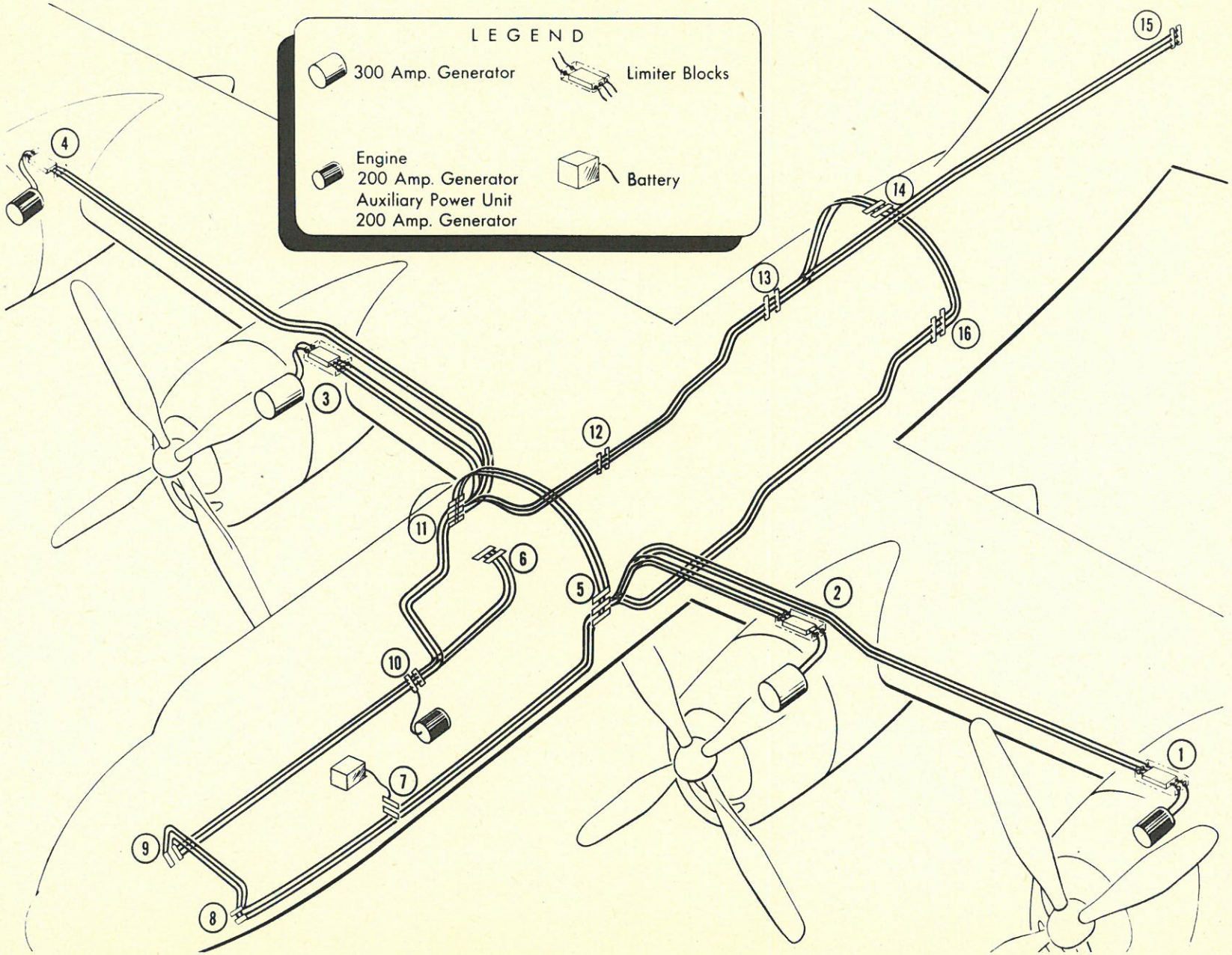


Figure 43 — *Electrical Supply System*

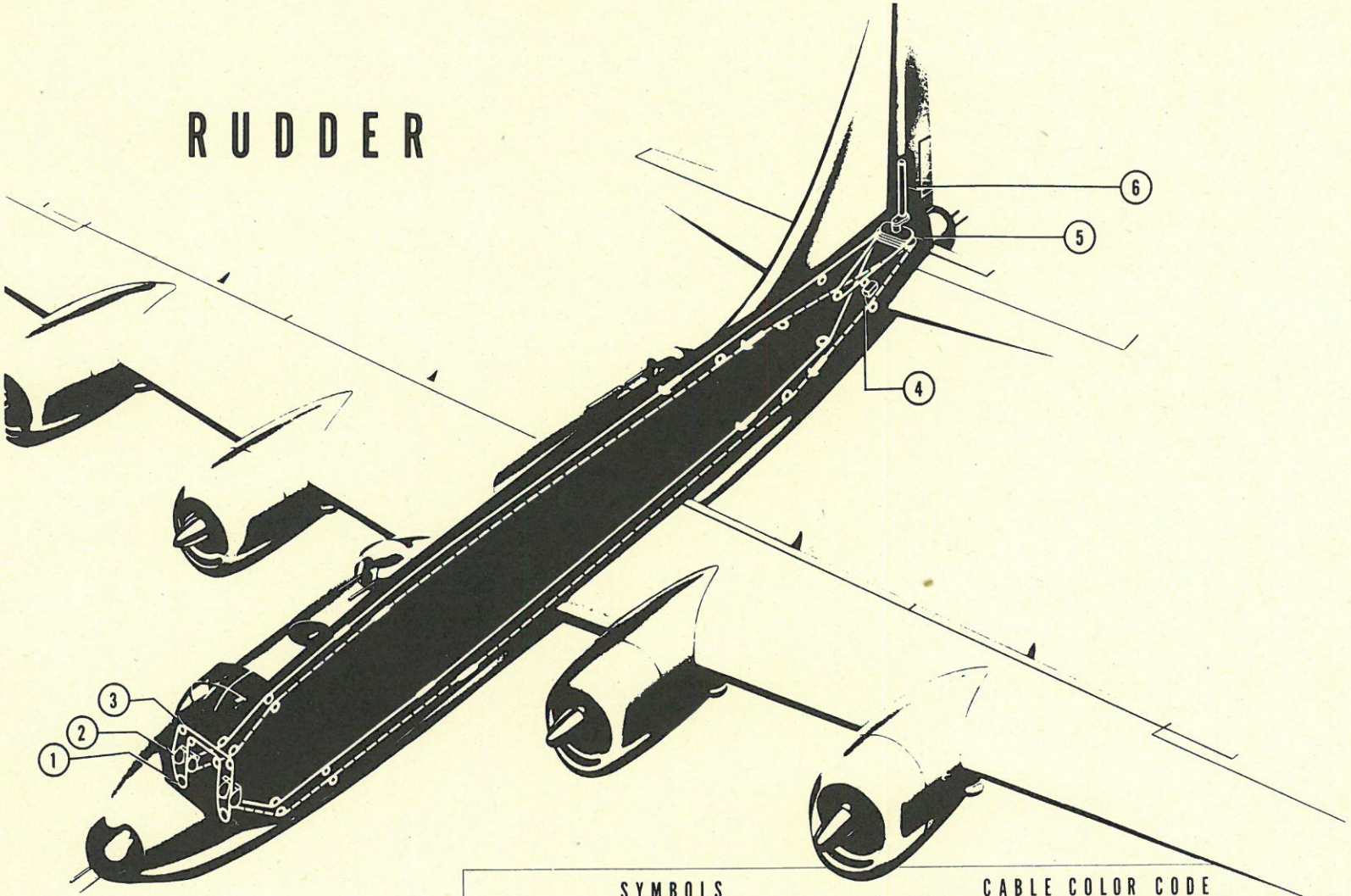


21. Limiter Block (6 Links)
22. Bombardier's Panel
23. Pilot's Panel (2 Leads Each Side)
24. Limiter Blocks (6 Links Each)
25. Blind Landing & Radio Compass
    Navigator's Panel
    Landing Light
    External Power & Identification Receiver
    Command Receiver, Command Modulator & Interphone
    Landing Light
26. Limiter Block (4 Links)
27. F'w'd Martin Turret
28. Limiter Blocks (6 Links Each)
29. Limiter Blocks (1 Block, 4 Links) (1 Block, 6 Links)
30. B.T.O. Power
31. Limiter Blocks (4 Links Each)
32. Aft Martin Turret
33. Ball Turret


LEGEND
300 Amp. Generator
Limiter Blocks
Engine
200 Amp. Generator
Auxiliary Power Unit
200 Amp. Generator
Battery
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

RESTRICTED

RUDDER



SYMBOLS

Turnbuckle
Tension Regulator
Pulley

LEGEND

1. Runaround Pulley
2. Rudder Pedal
3. Crossover Pulley
4. Rudder Servo Unit, C-1
5. Control Quadrant
6. Rudder Torque Tube

CABLE COLOR CODE

Rudder RIGHT
Rudder LEFT

CABLE SPECIFICATION

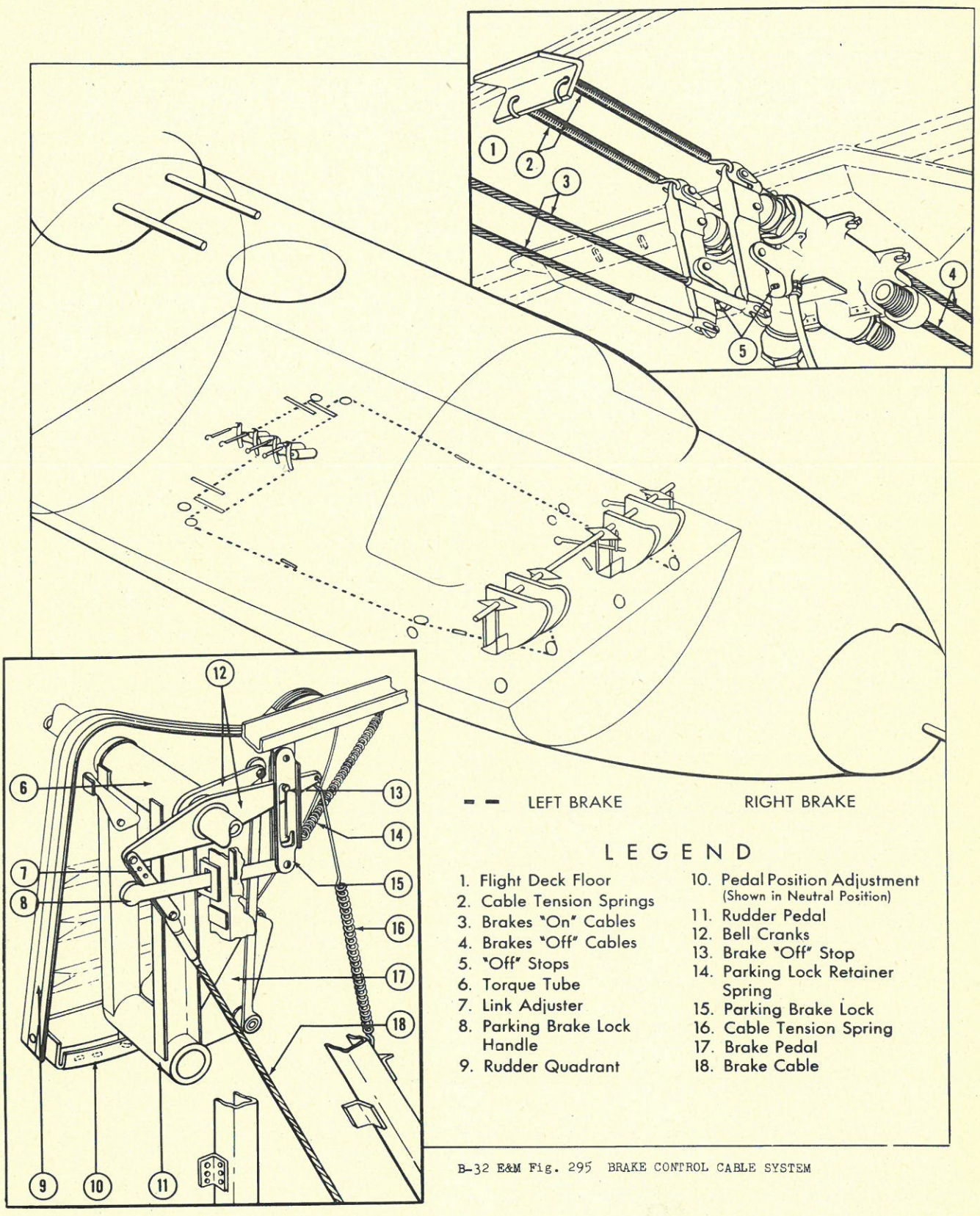
For cable size, length, and terminal fittings, refer to paragraph 1, Section IX

RUDDER DEFLECTION

RIGHT Rudder 20
LEFT Rudder 20

RESTRICTED

RESTRICTED



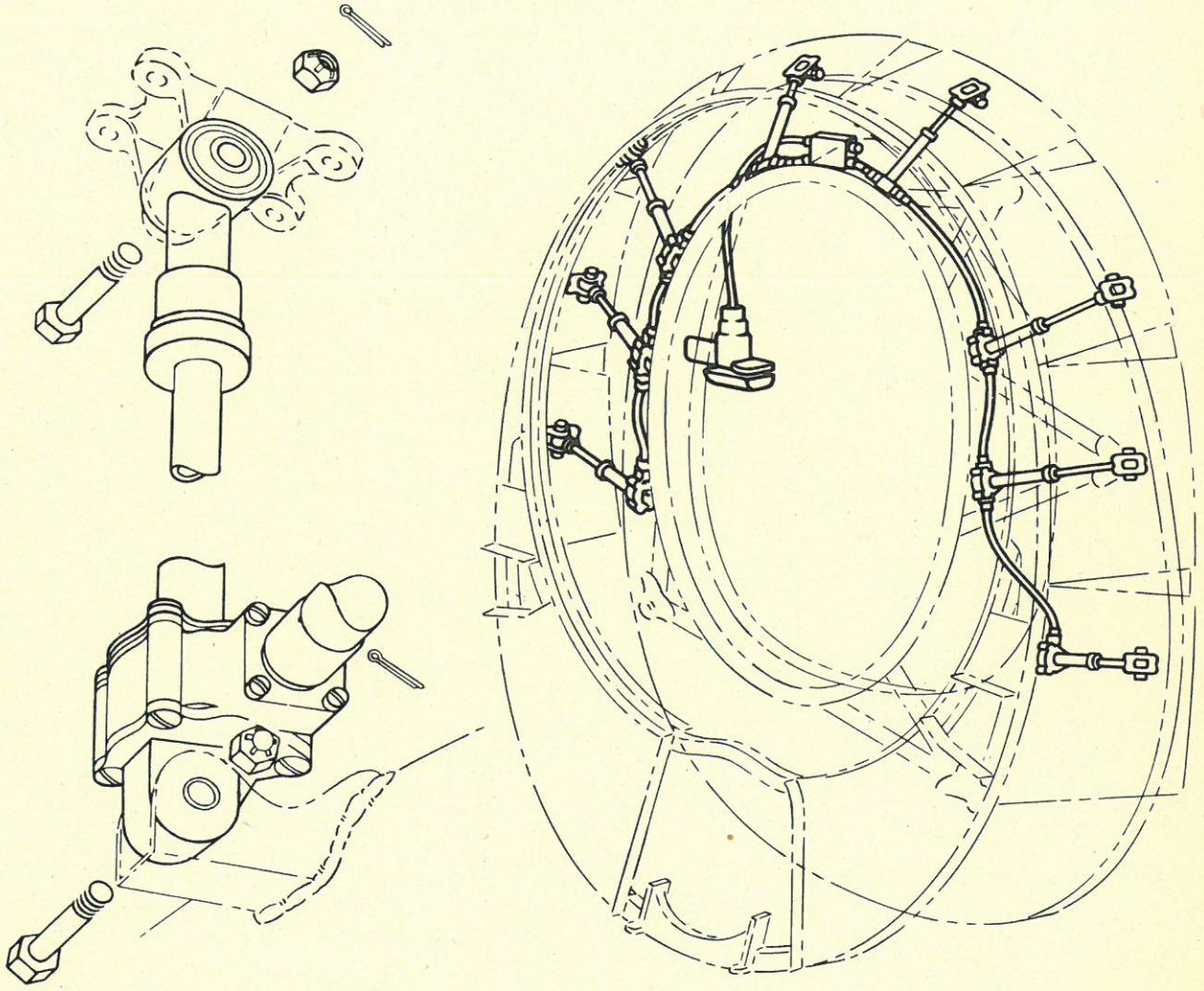
LEGEND

1. Flight Deck Floor
2. Cable Tension Springs
3. Brakes "On" Cables
4. Brakes "Off" Cables
5. "Off" Stops
6. Torque Tube
7. Link Adjuster
8. Parking Brake Lock Handle
9. Rudder Quadrant
10. Pedal Position Adjustment (Shown in Neutral Position)
11. Rudder Pedal
12. Bell Cranks
13. Brake "Off" Stop
14. Parking Lock Retainer Spring
15. Parking Brake Lock
16. Cable Tension Spring
17. Brake Pedal
18. Brake Cable

B-32 E&M Fig. 295 BRAKE CONTROL CABLE SYSTEM

14-951

RESTRICTED



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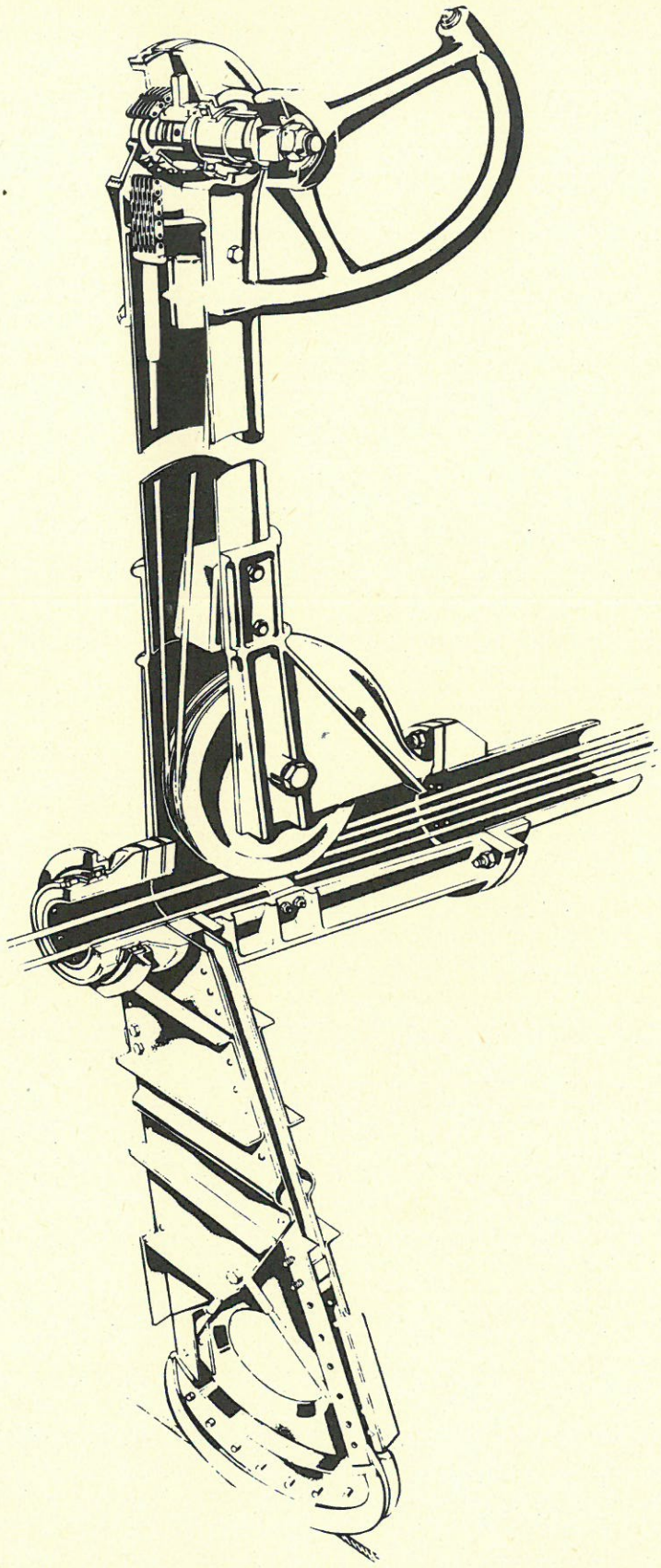
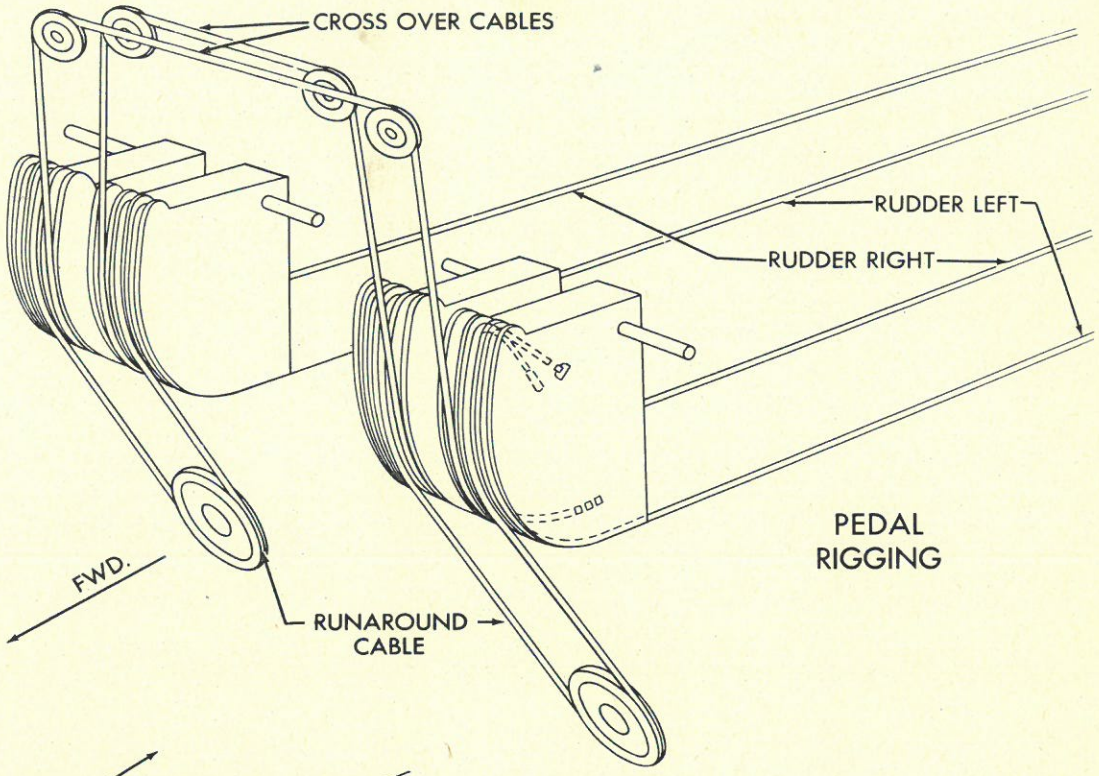
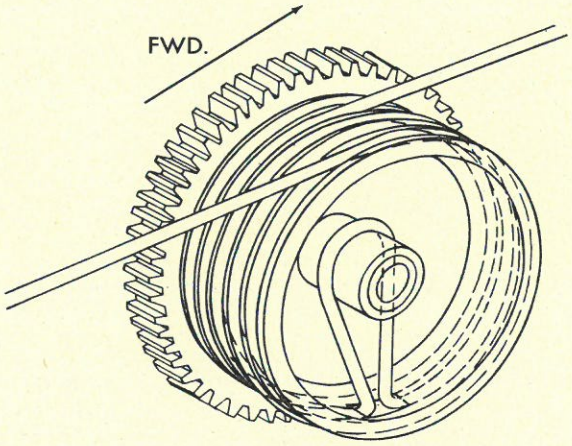


FW-802

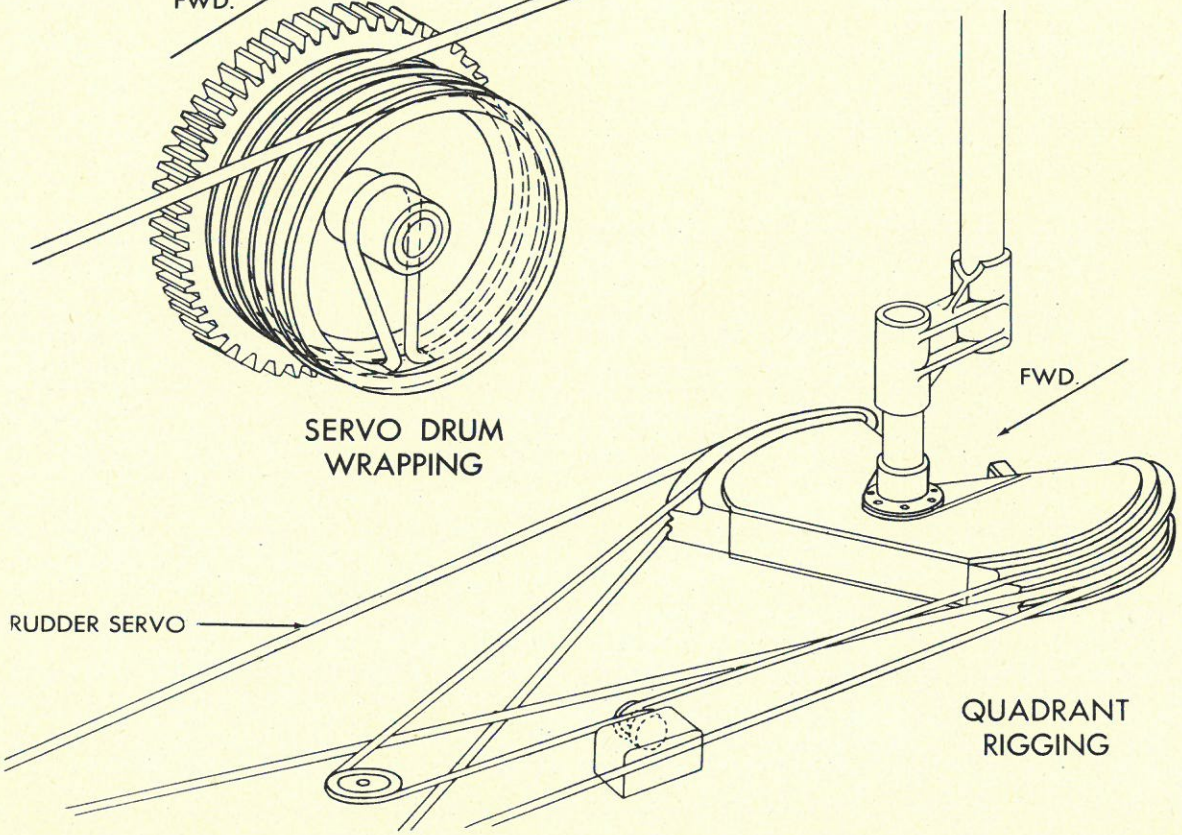
RESTRICTED



PEDAL RIGGING



SERVO DRUM WRAPPING



QUADRANT RIGGING

FW-799

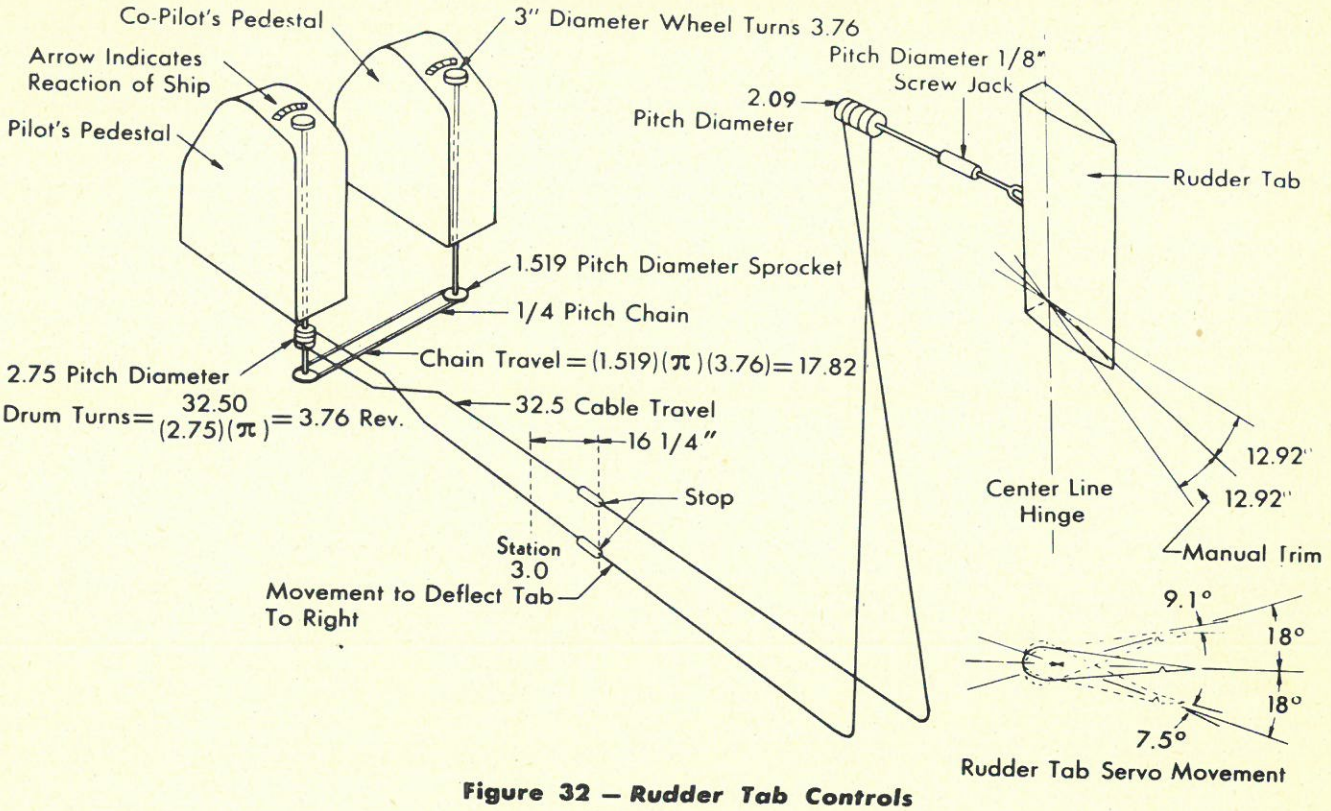


Figure 32 — *Rudder Tab Controls*

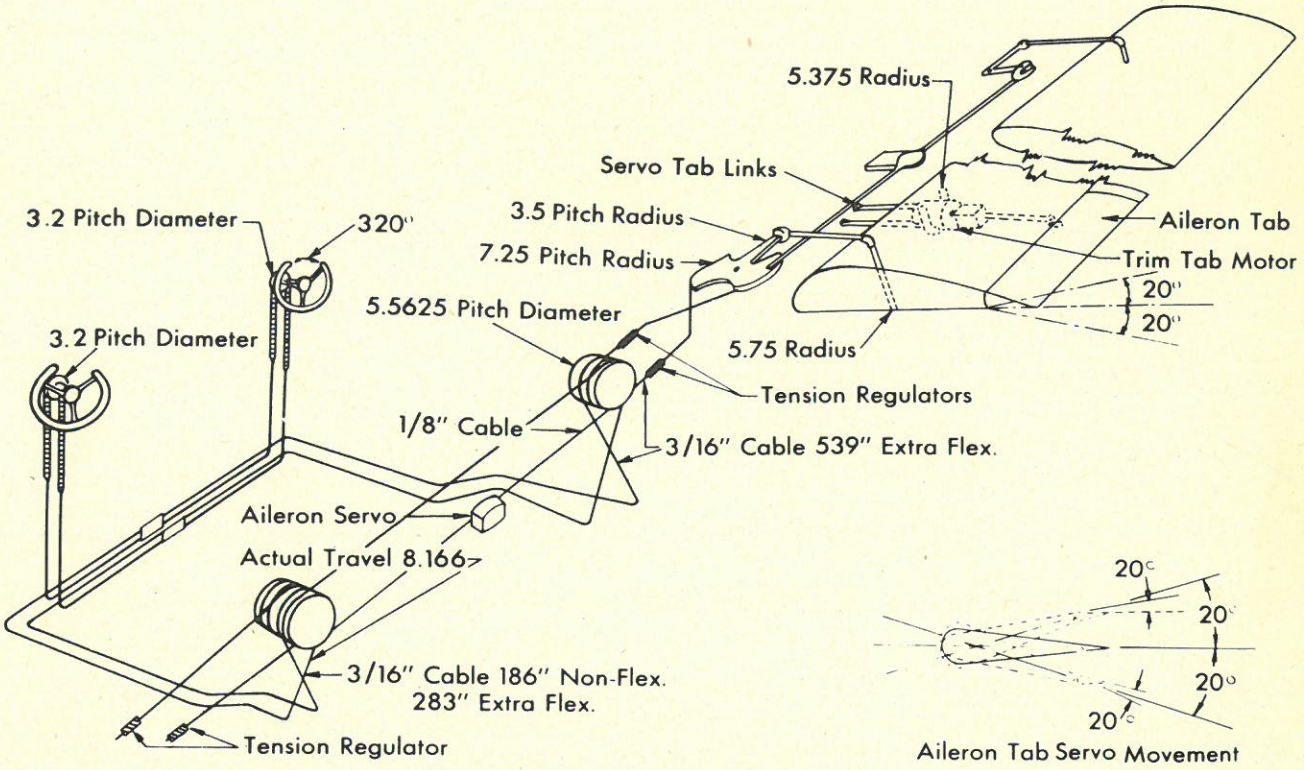
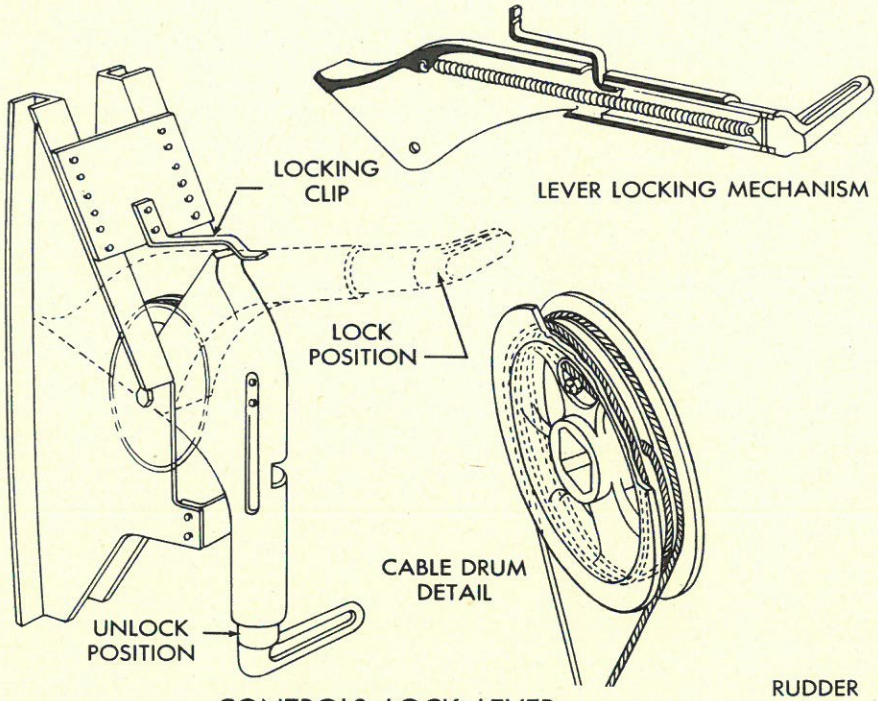
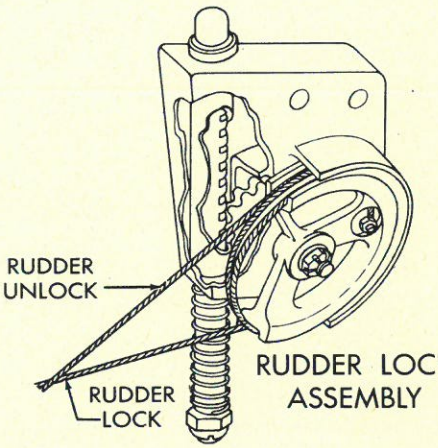


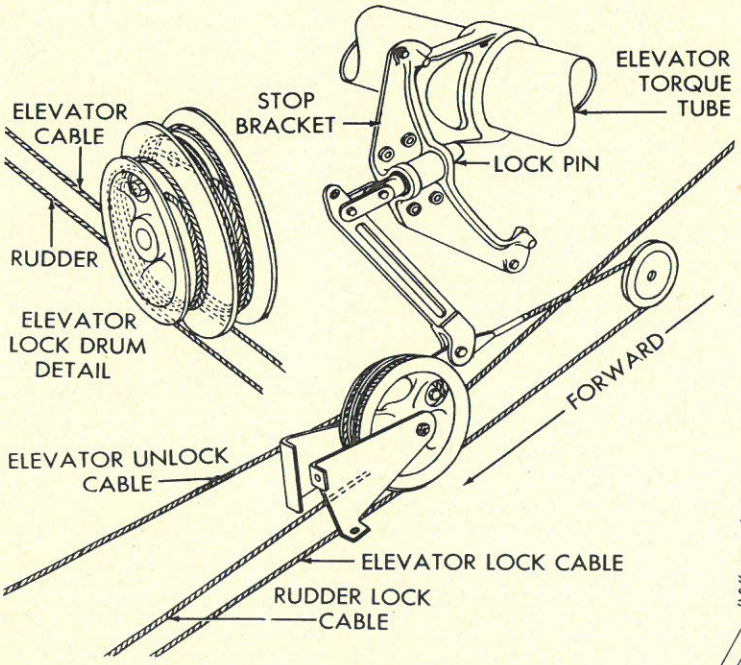
Figure 33 — *Aileron Controls*



CONTROLS LOCK LEVER

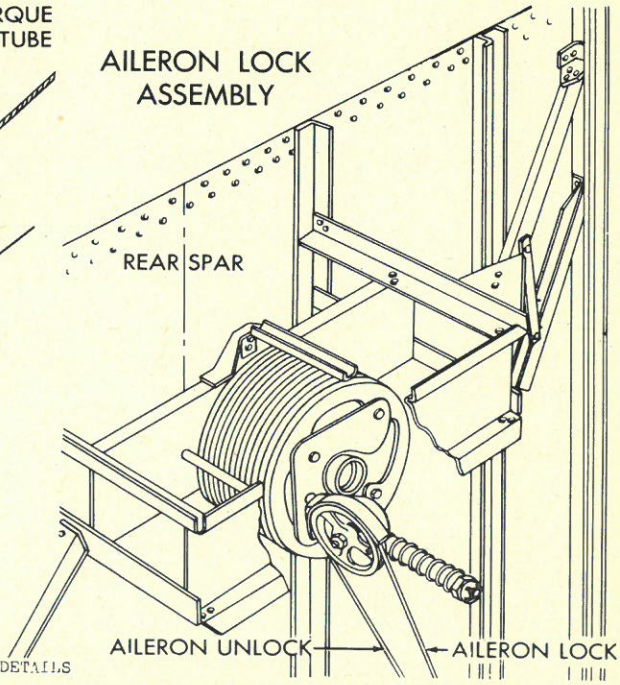


RUDDER LOCK ASSEMBLY



ELEVATOR LOCK ASSEMBLY

AILERON LOCK ASSEMBLY

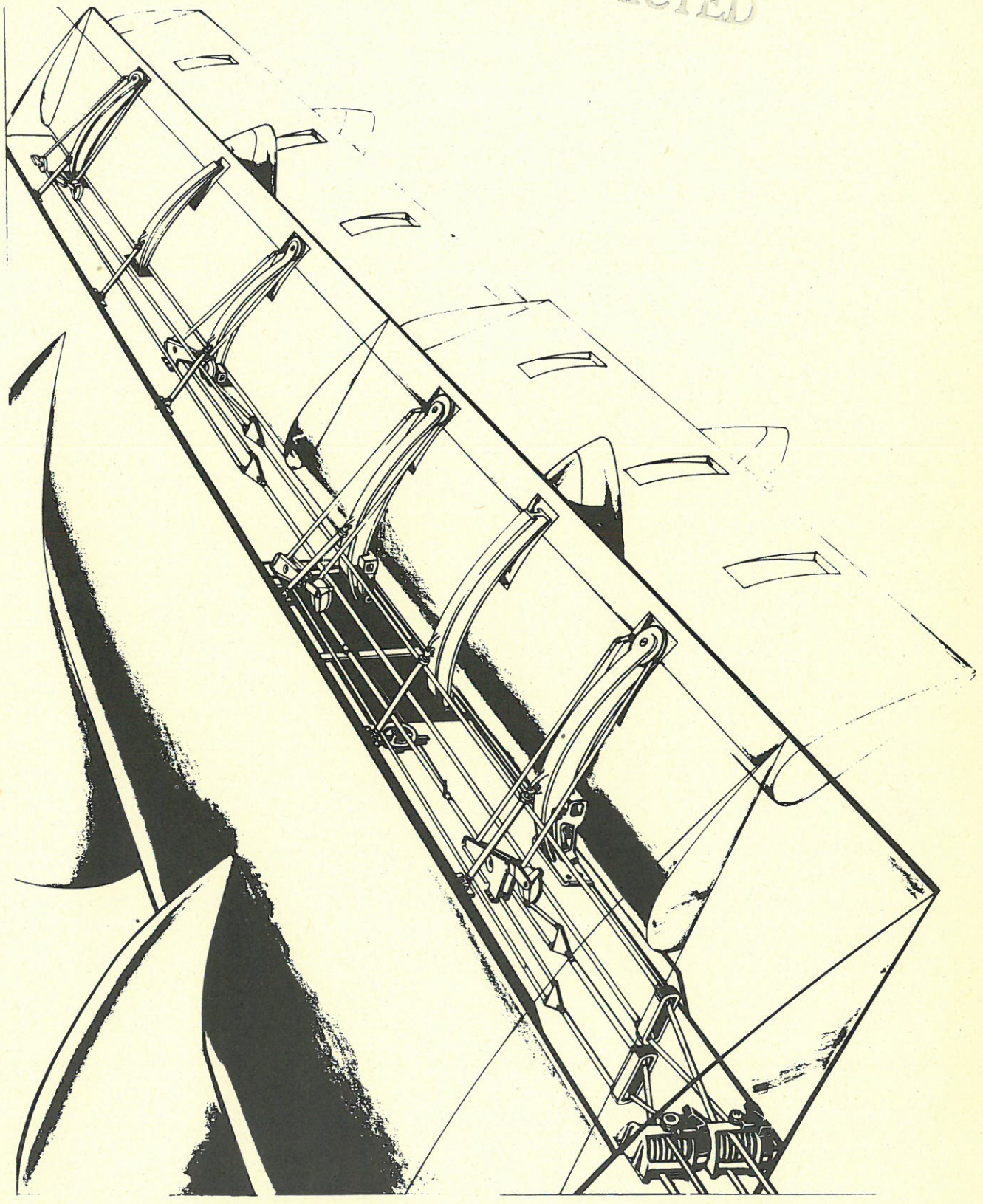


B-3? E&M Fig. 285 CONTROLS LOCK RIGGING DETAILS

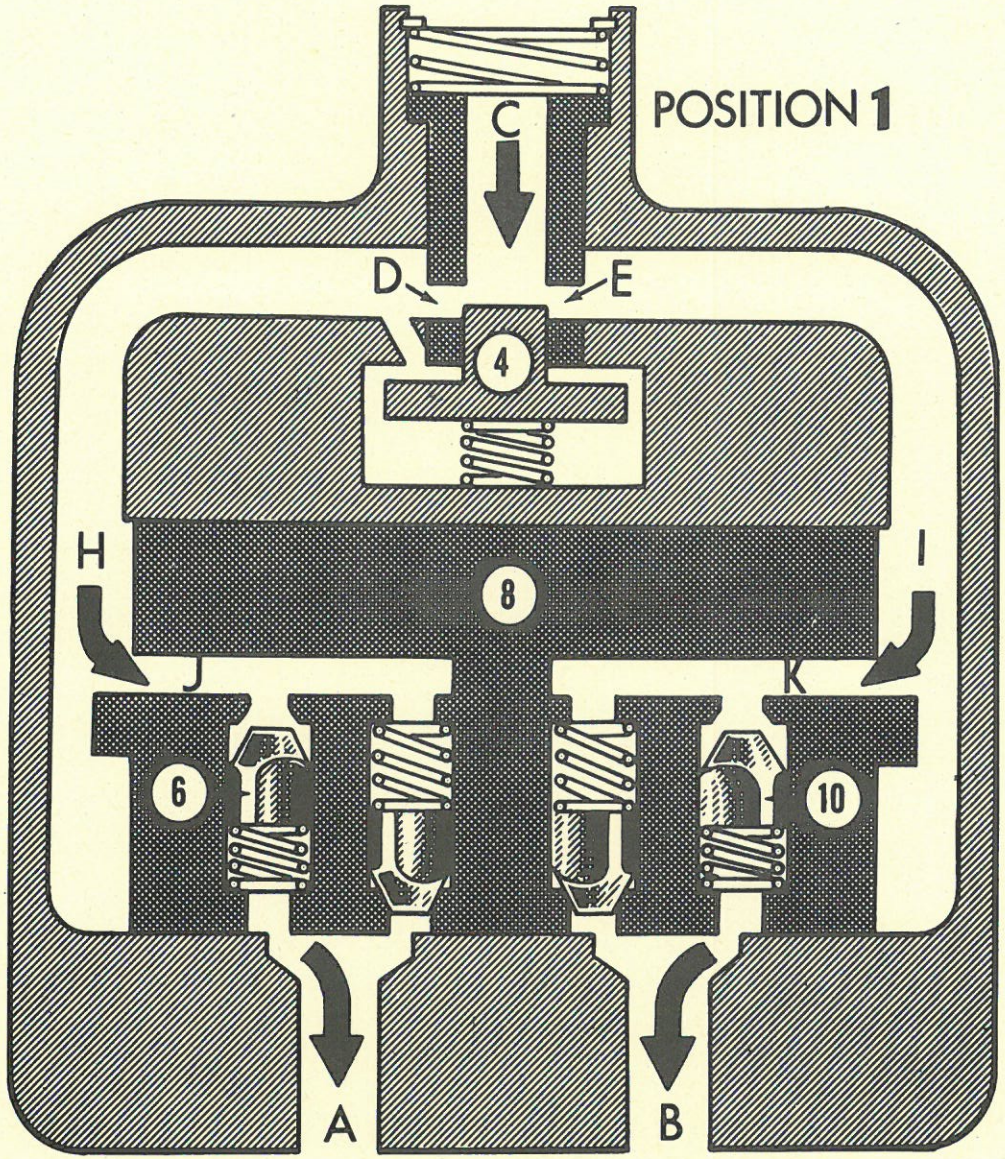
14-942

FW-800

RESTRICTED

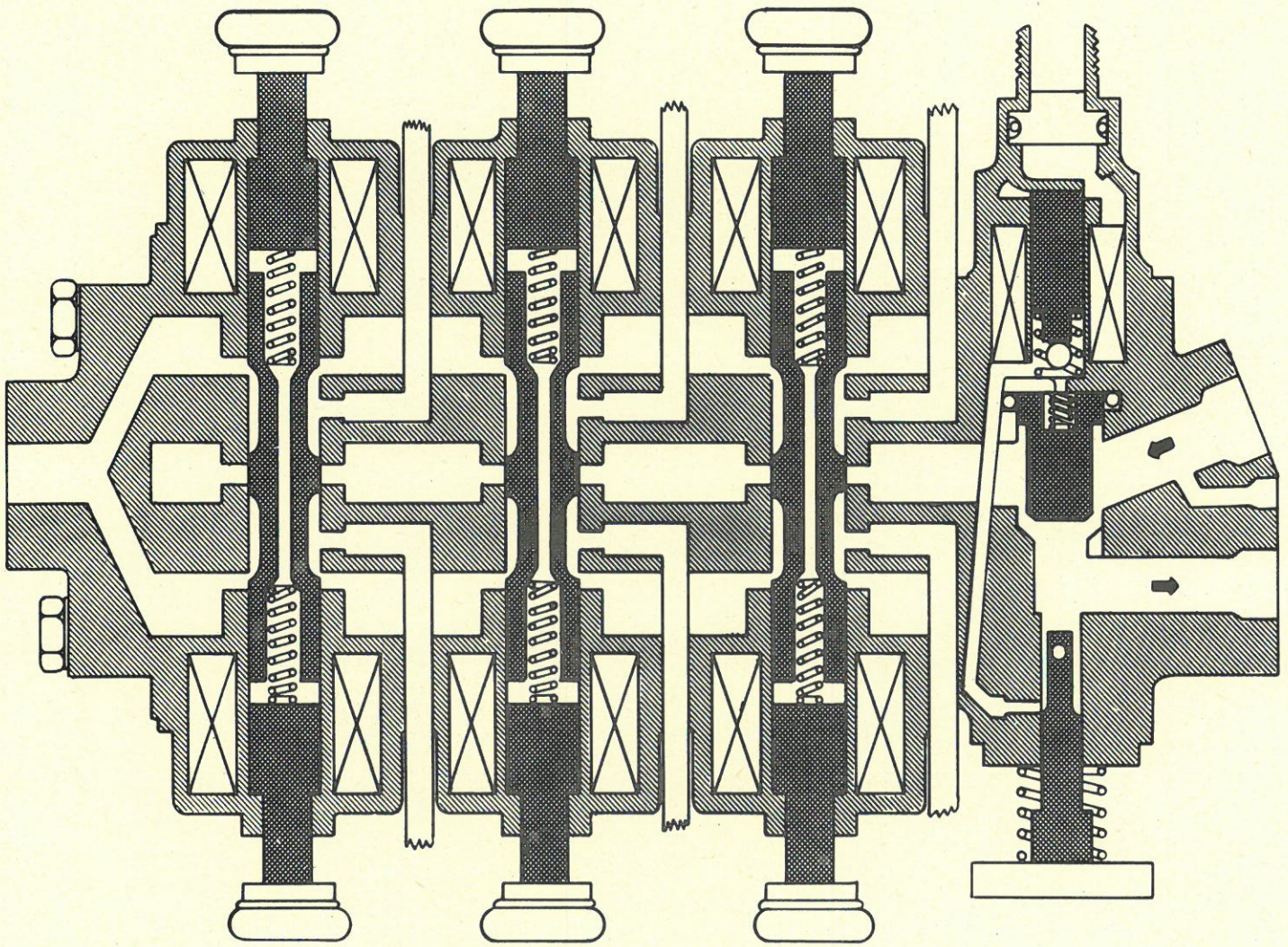


FW-801



B-32 E&M Fig. 342 PROPORTIONAL FLOW DIVIDER - SCHEMATIC
(POSITION 1)

RESTRICTED



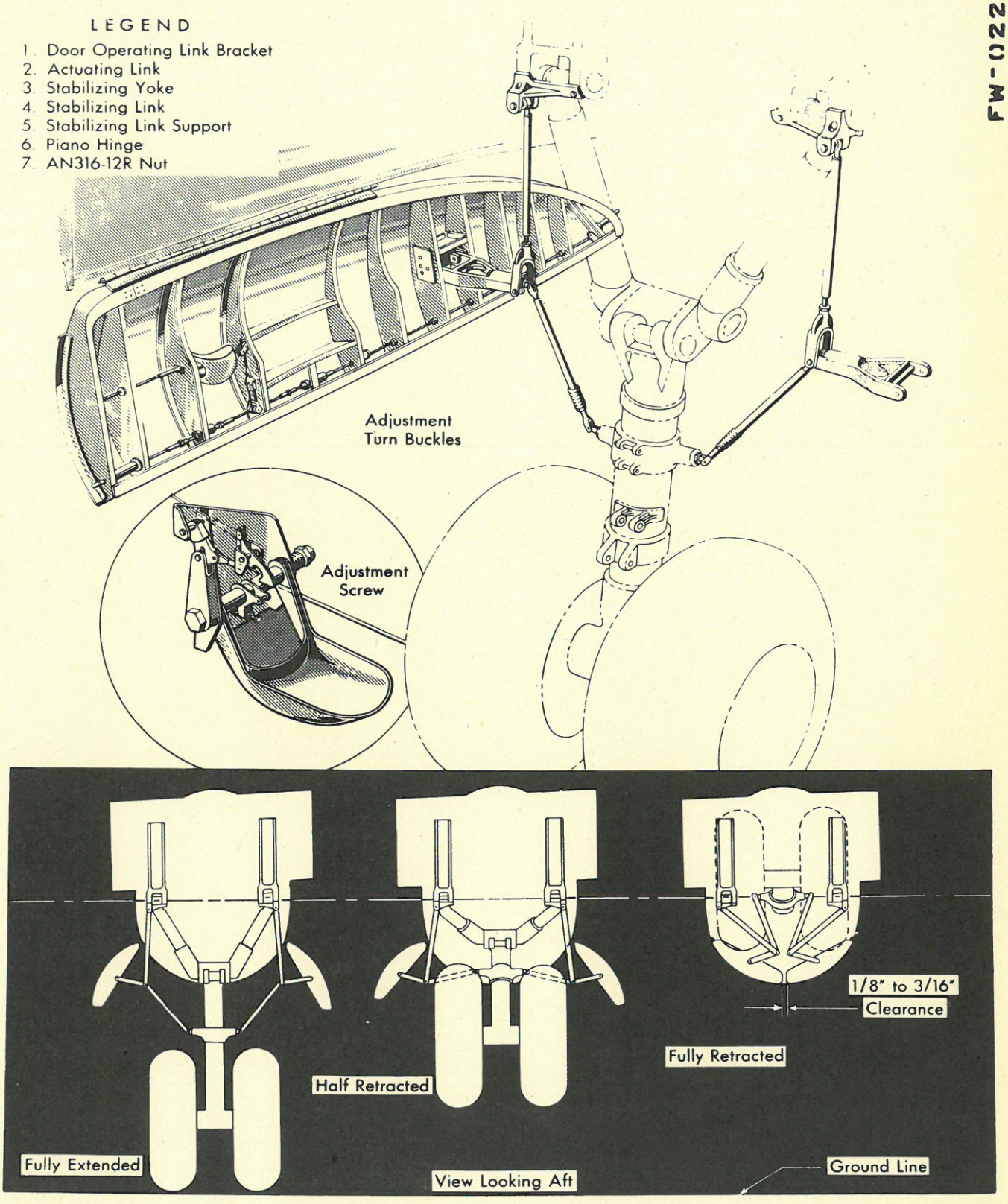
POSITION 1

RESTRICTED

B-32 E&M Fig. 313 MAIN SELECTOR VALVE - SCHEMATIC (POSITION 1)

LEGEND

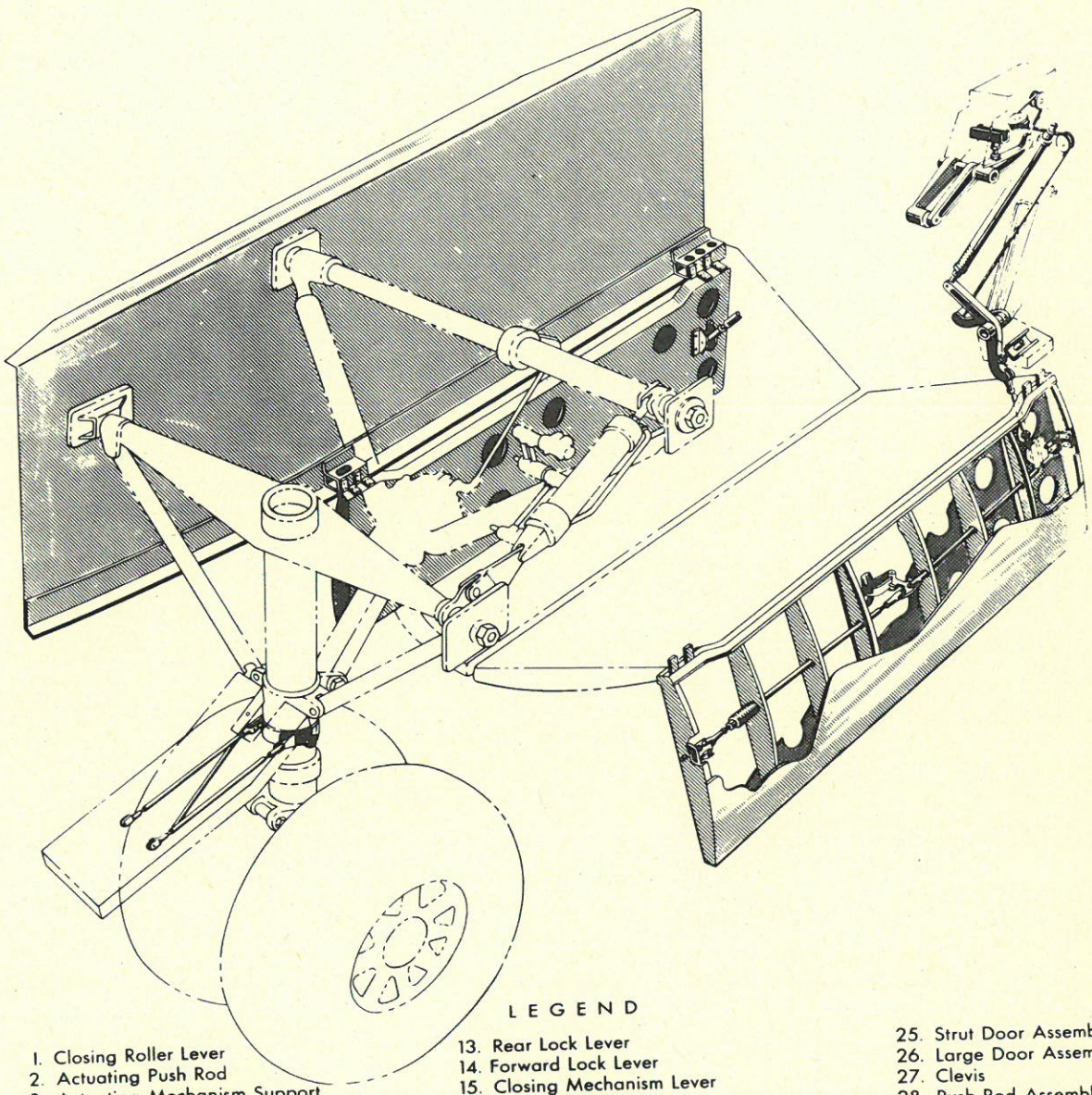
1. Door Operating Link Bracket
2. Actuating Link
3. Stabilizing Yoke
4. Stabilizing Link
5. Stabilizing Link Support
6. Piano Hinge
7. AN316-12R Nut



B-32 E&M. Fig. 79 MAIN ALIGHTING GEAR DOORS AND OPERATION DIAGRAM

RESTRICTED

RESTRICTED

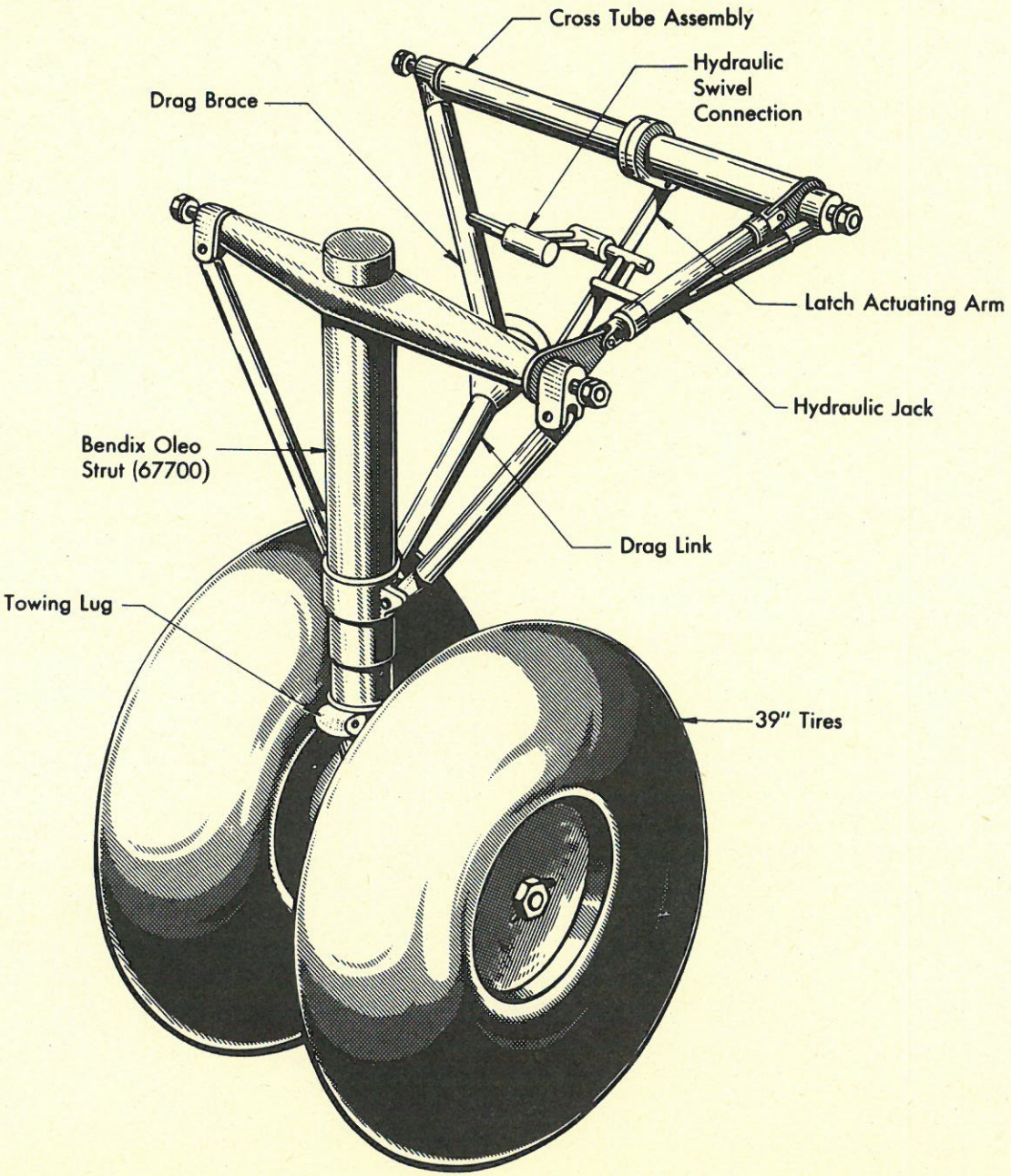


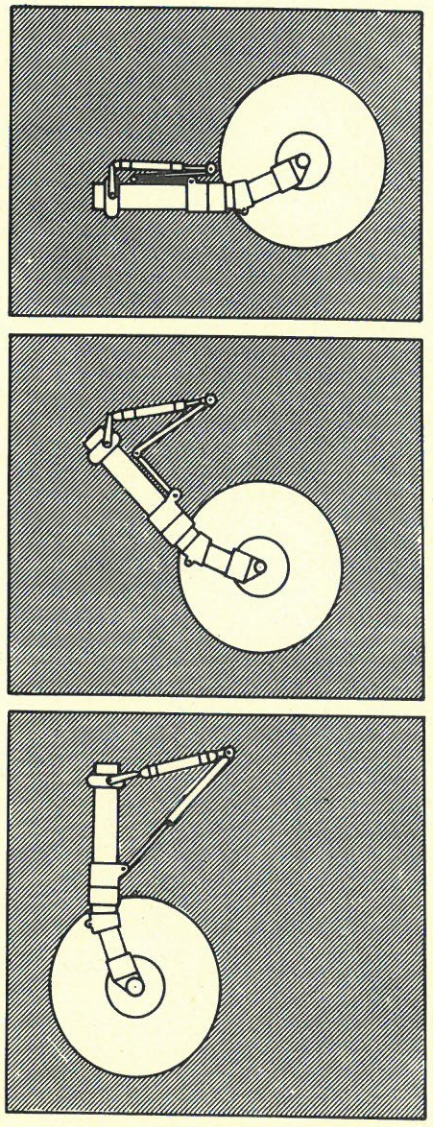
LEGEND

1. Closing Roller Lever
2. Actuating Push Rod
3. Actuating Mechanism Support
4. Actuating Mechanism Spring
5. Opening Mechanism
6. Down Lock Bolt
7. Closing Mechanism
8. Door Lock Treadle
9. Actuating Lug
10. Rear Push Rod
11. Lock Pin
12. Lock Push Rod Spring
13. Rear Lock Lever
14. Forward Lock Lever
15. Closing Mechanism Lever
16. Actuating Lever
17. Closing Mechanism Cable Lever
18. Closing Mechanism Bracket
19. Hinge Assembly
20. Actuating Push Rod Bracket
21. Up Stop Bolt
22. Actuating Mechanism Tube
23. Closing Mechanism Tube
24. Roller
25. Strut Door Assembly
26. Large Door Assembly
27. Clevis
28. Push Rod Assembly
29. Nose Well Beam
30. Hinge Assembly
31. Clevis
32. Clevis
33. Lock Pin
34. Clevis
35. Forward Push Rod

44-27 B-32 E&M. NOSE ALIGHTING GEAR FAIRING DOOR ASSEMBLY

RESTRICTED

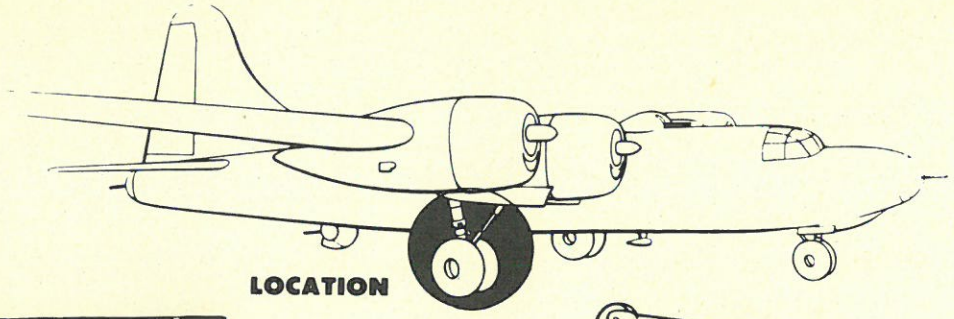




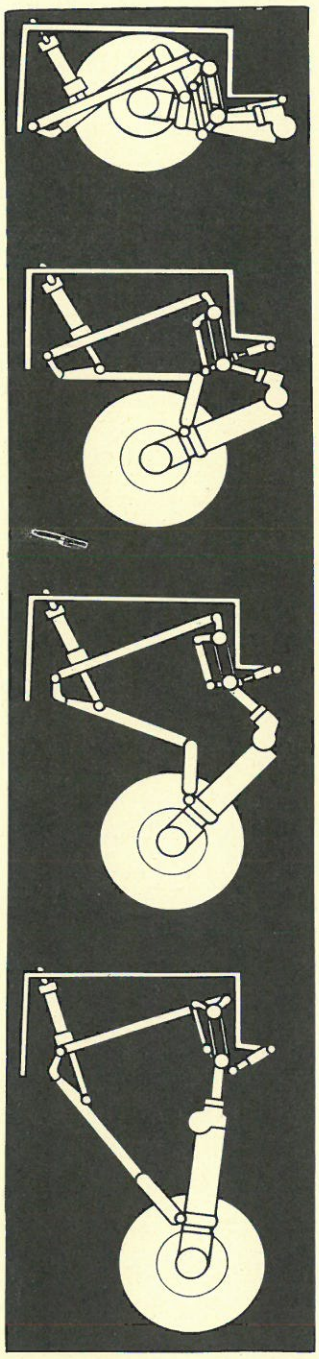
RETRACTION DIAGRAM

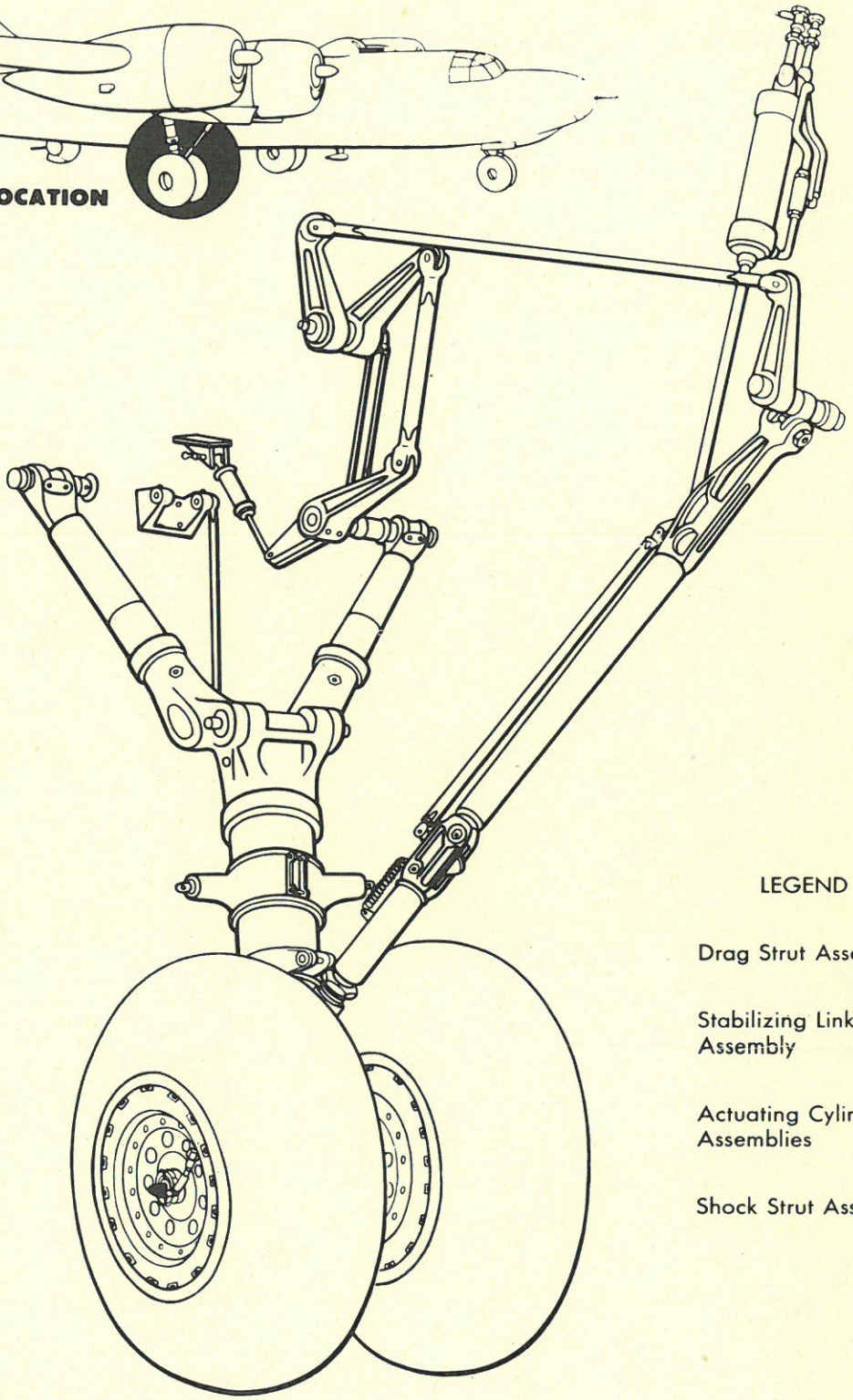
Figure 39 — *Nose Landing Gear*

FW-0225



LOCATION





LEGEND

Drag Strut Assembly

Stabilizing Linkage Assembly

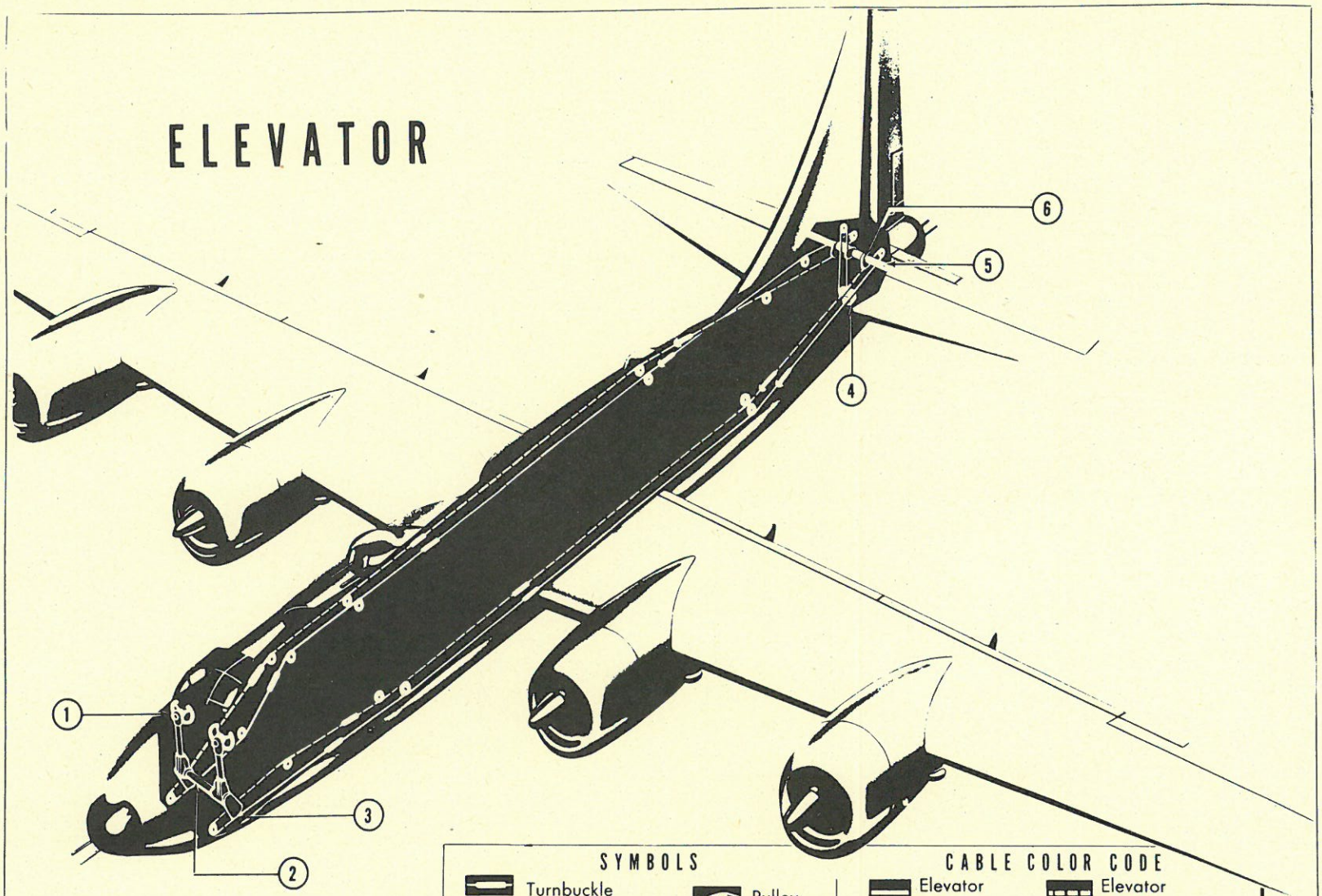
Actuating Cylinder Assemblies

Shock Strut Assembly

B-32 E&M Fig. 74 MAIN ALIGHTING GEAR ASSEMBLY AND OPERATION DIAGRAM

RESTRICTED

ELEVATOR



SYMBOLS

Turnbuckle
Tension Regulator

Pulley

LEGEND

1. Control Column
2. Column Torque Tube.
3. Quadrant, Fwd.
4. Servo Unit, C-1.
5. Elevator Torque Tube.
6. Quadrant, Aft.

CABLE COLOR CODE

Elevator UP

Elevator DOWN

CABLE SPECIFICATION

For cable size, length, and terminal fittings, refer to paragraph 1, Section IX

ELEVATOR DEFLECTION

Elevator UP-25 Elevator DOWN-15

RESTRICTED

RESTRICTED

V.B. Photo-XIII

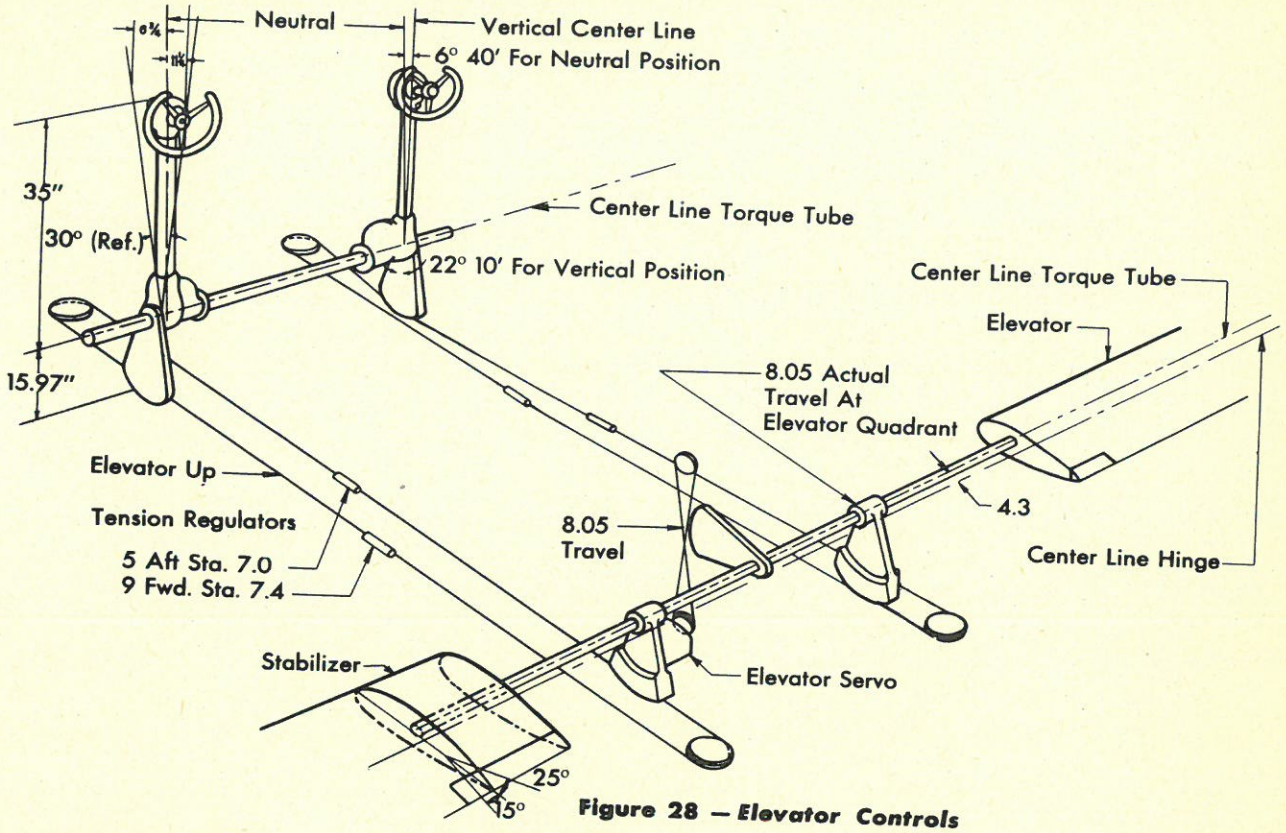


Figure 28 — *Elevator Controls*

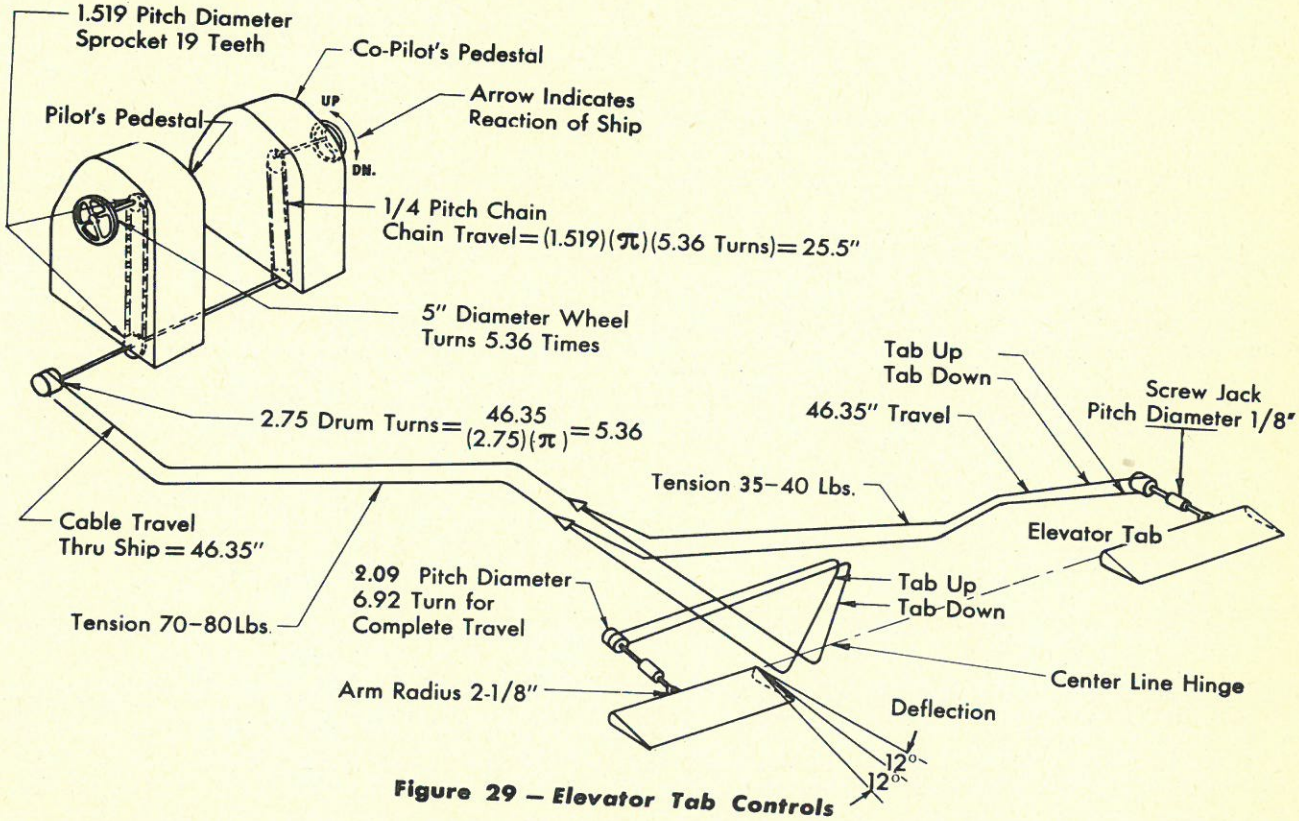
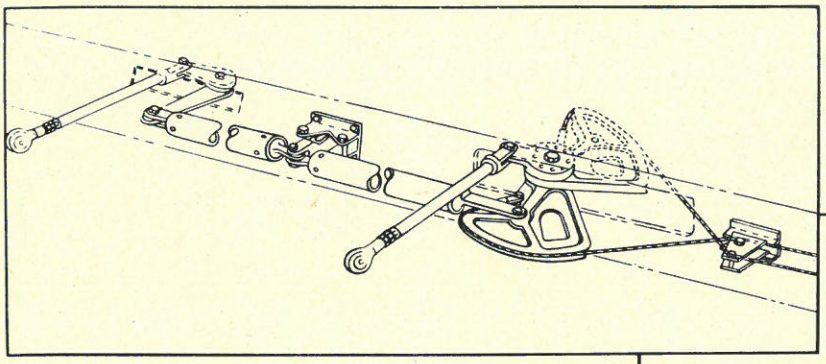
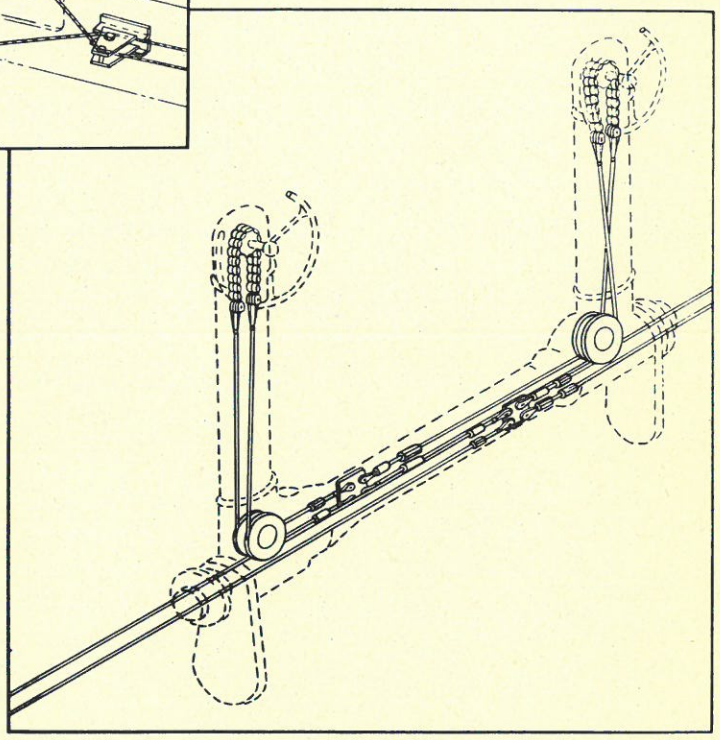
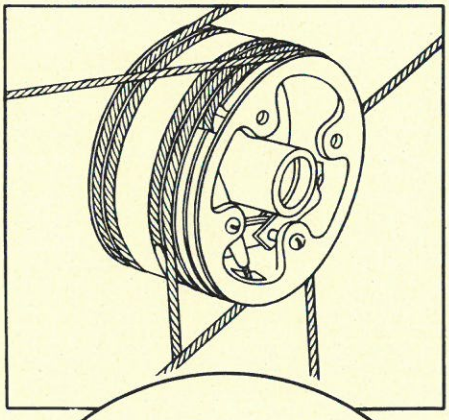
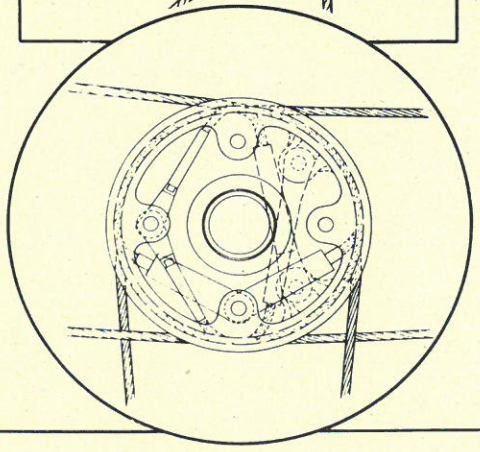


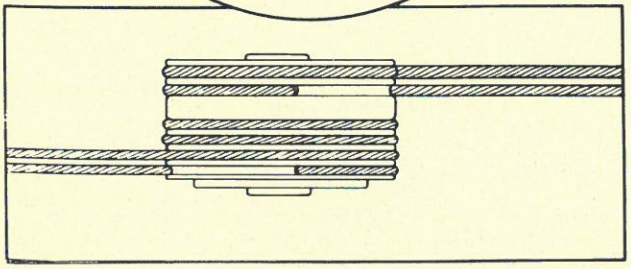
Figure 29 — *Elevator Tab Controls*

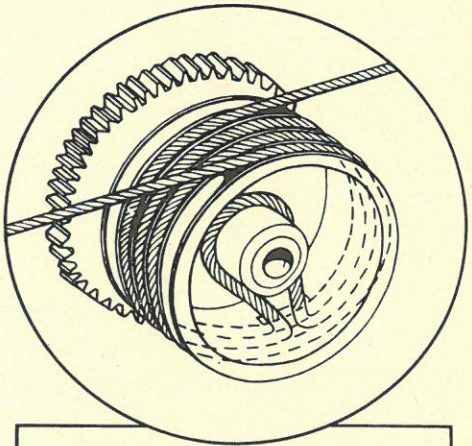


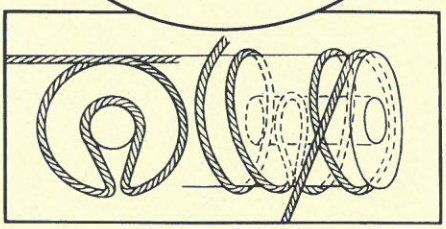












This device is installed in the control cable lines and serves to maintain relatively constant cable tension under different load conditions and at varying temperatures. The combination hydraulic cylinder and spring serves to resist elongation of the regulator when sudden loads are applied. If a load is applied for several minutes the regulator will lengthen one inch. A mechanical stop is provided to limit the elongation of the regulator to one inch.

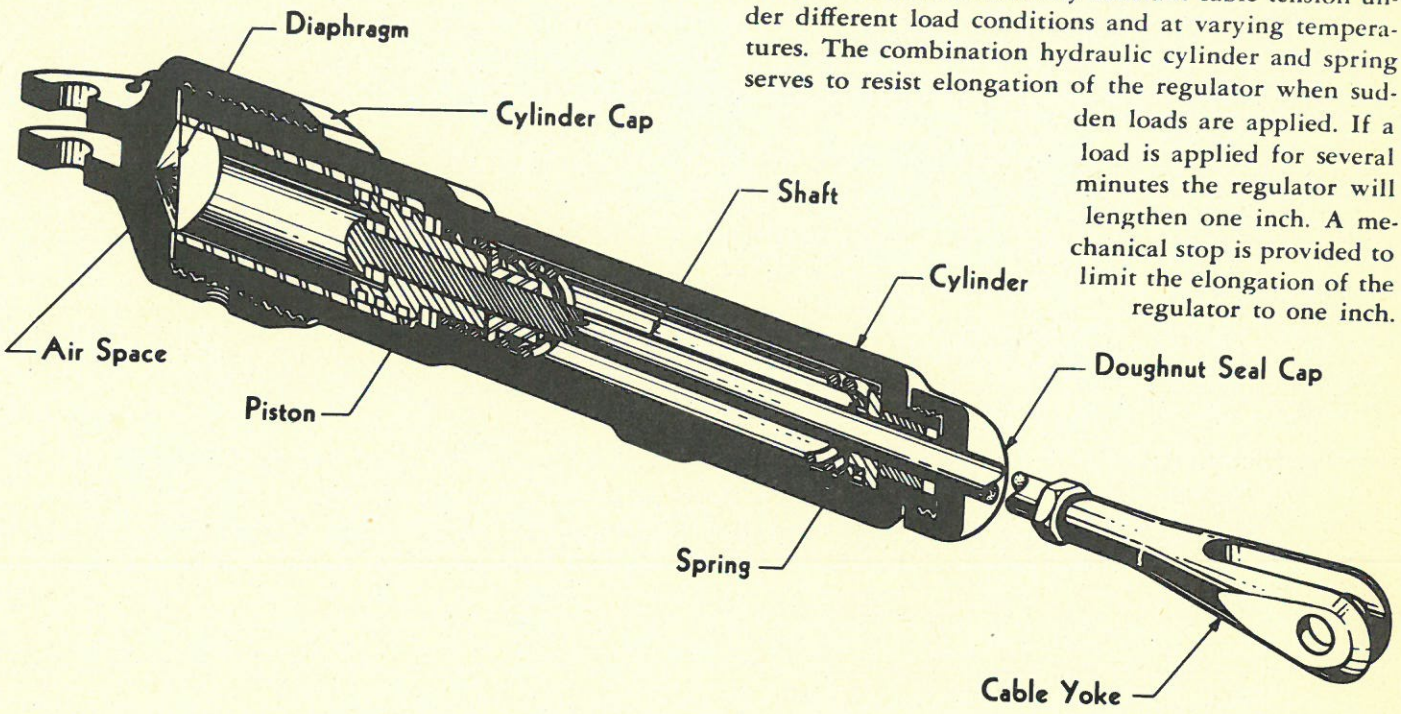
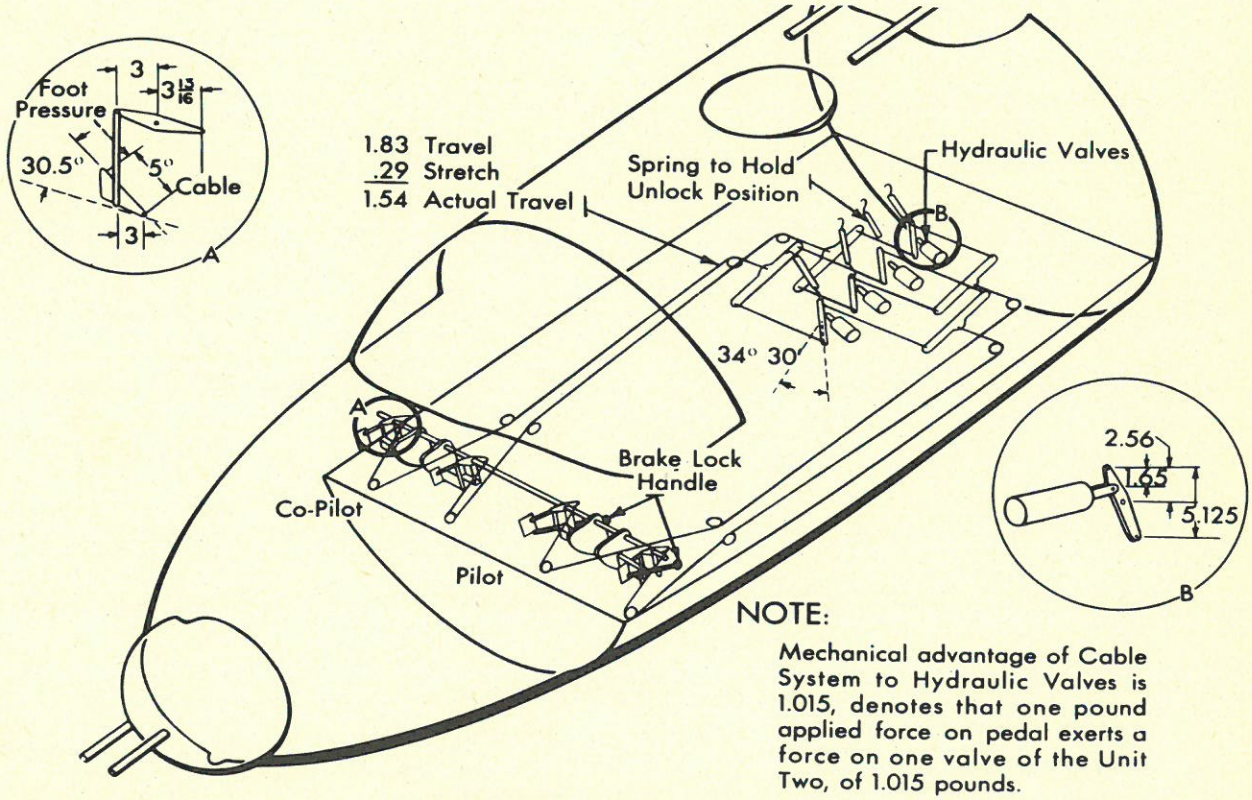


Figure 34 — *Cable Tension Regulator*



NOTE:

Mechanical advantage of Cable System to Hydraulic Valves is 1.015, denotes that one pound applied force on pedal exerts a force on one valve of the Unit Two, of 1.015 pounds.

Figure 35 — *Brake Controls*

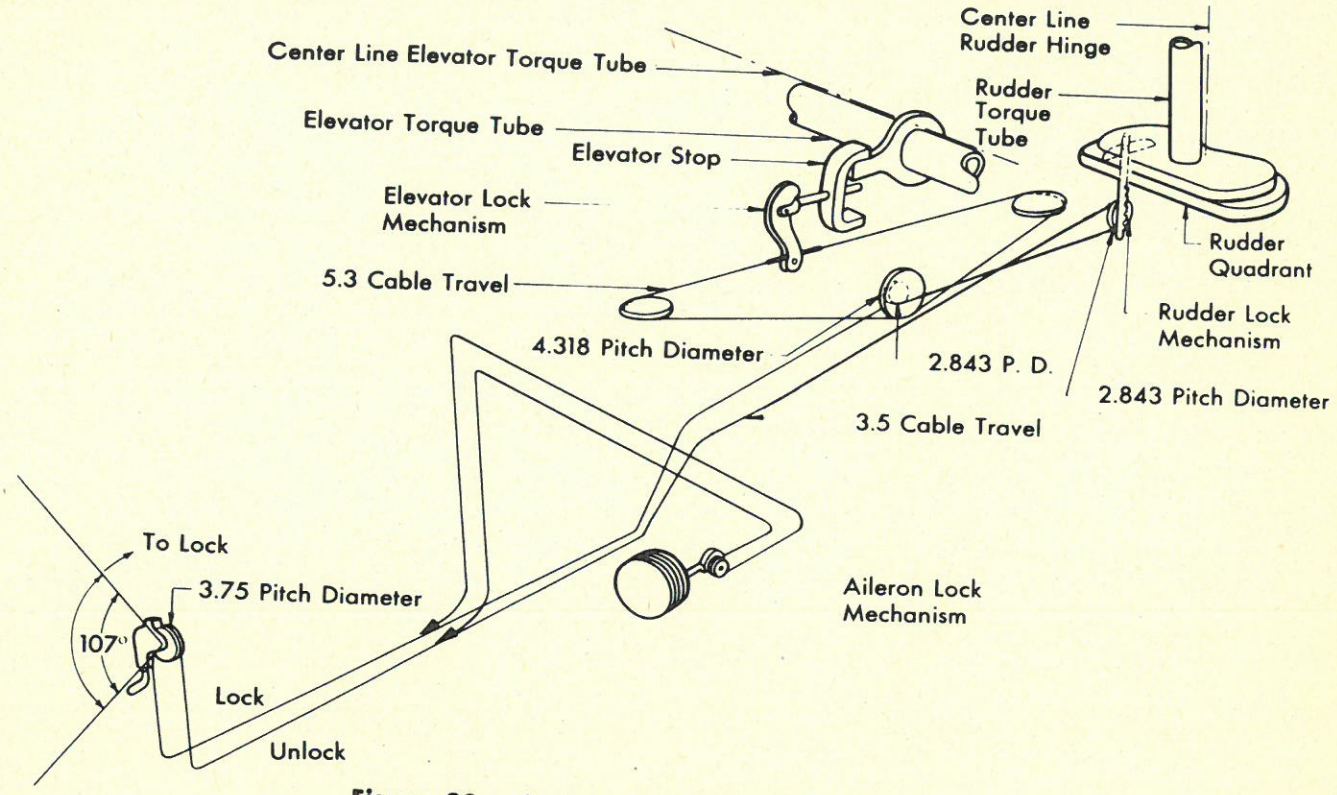


Figure 30 — *Surface Controls Lock System*

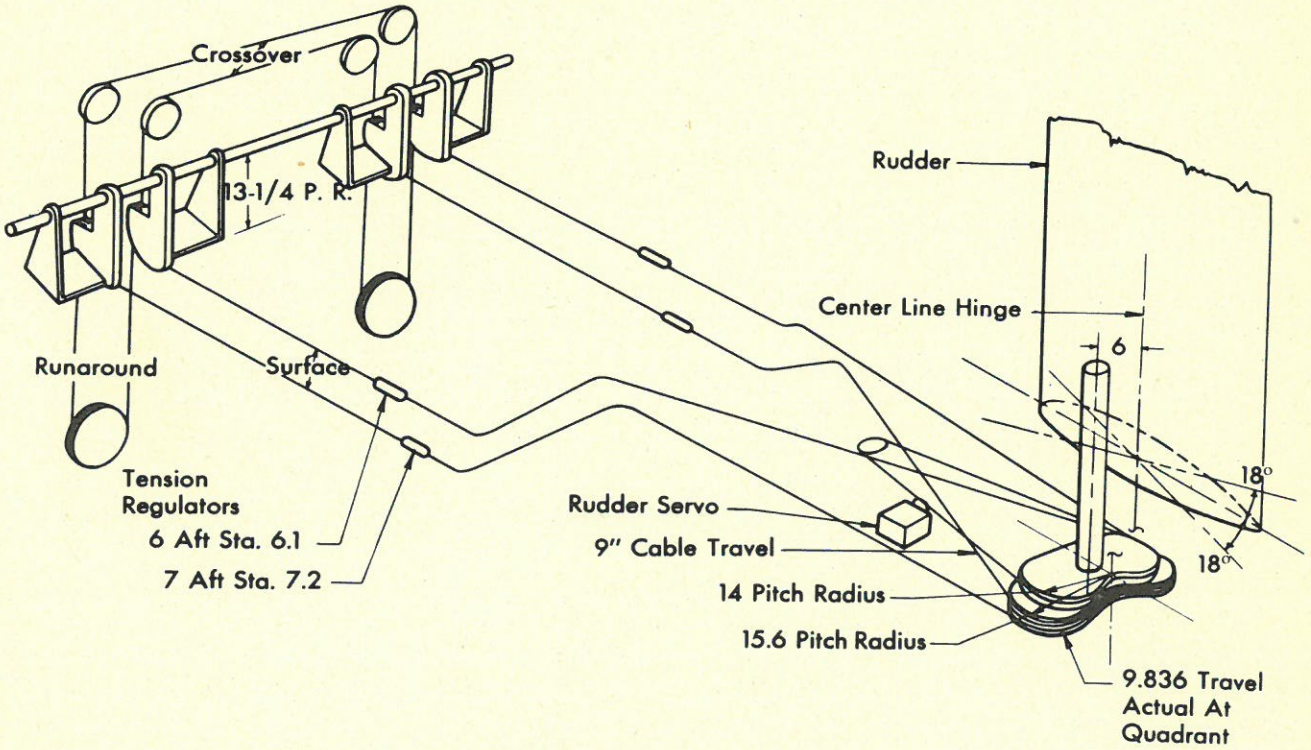
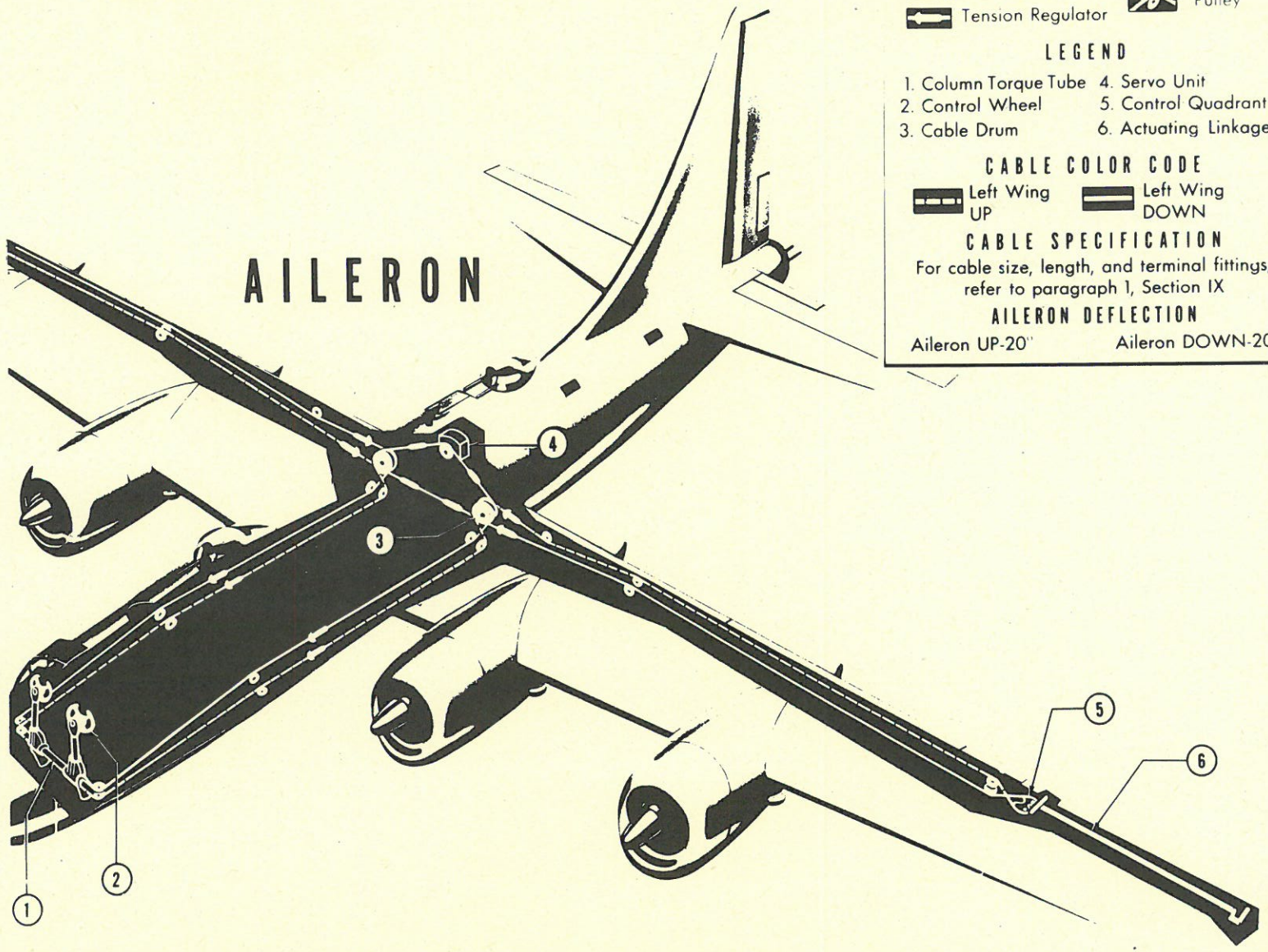


Figure 31 — *Rudder Controls*

AILERON



SYMBOLS

Turnbuckle
Tension Regulator
Pulley

LEGEND

1. Column Torque Tube
2. Control Wheel
3. Cable Drum
4. Servo Unit
5. Control Quadrant
6. Actuating Linkage

CABLE COLOR CODE

Left Wing UP
Left Wing DOWN

CABLE SPECIFICATION

For cable size, length, and terminal fittings, refer to paragraph 1, Section IX

AILERON DEFLECTION

Aileron UP-20°
Aileron DOWN-20°

RESTRICTED

14-921

FW-0300

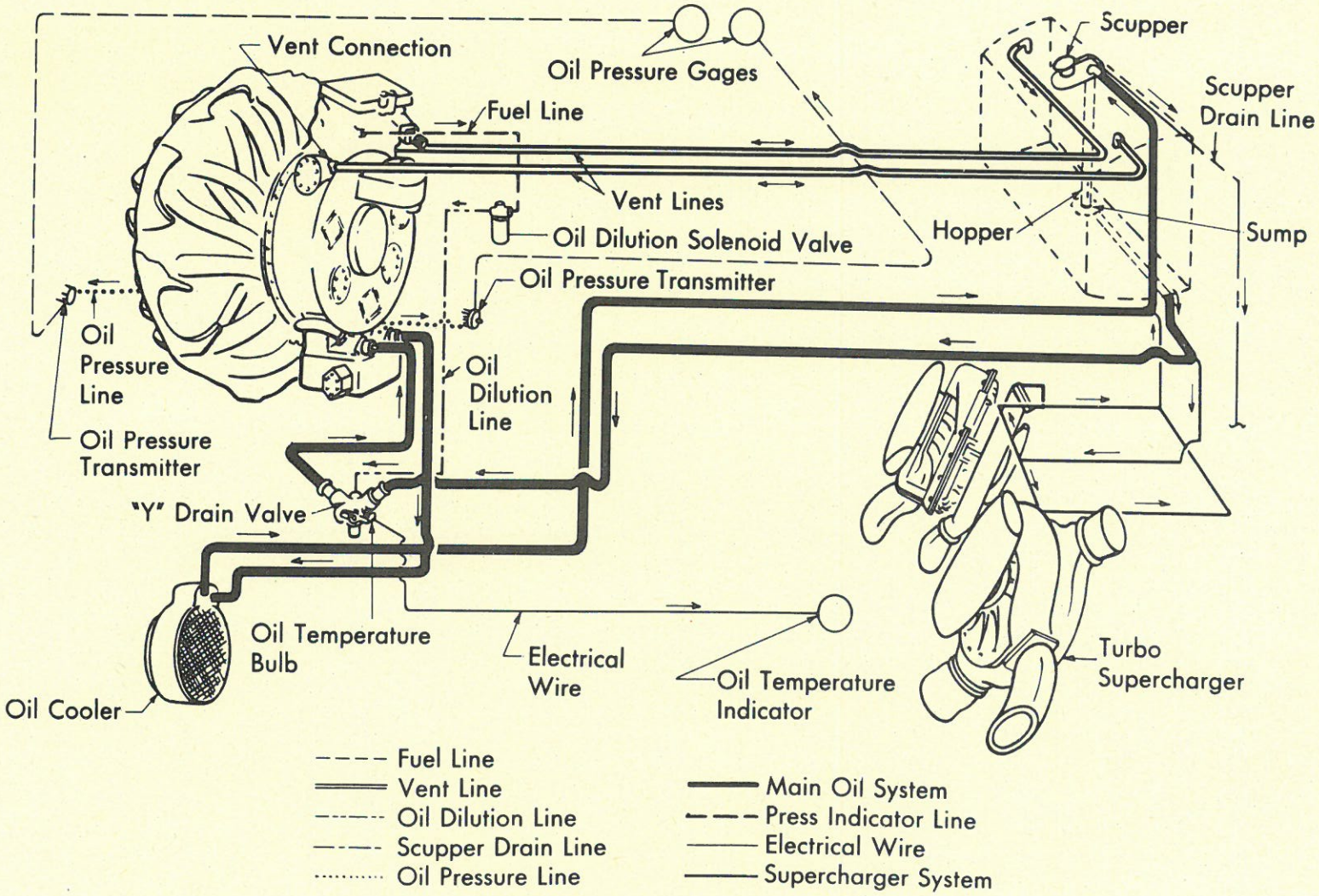
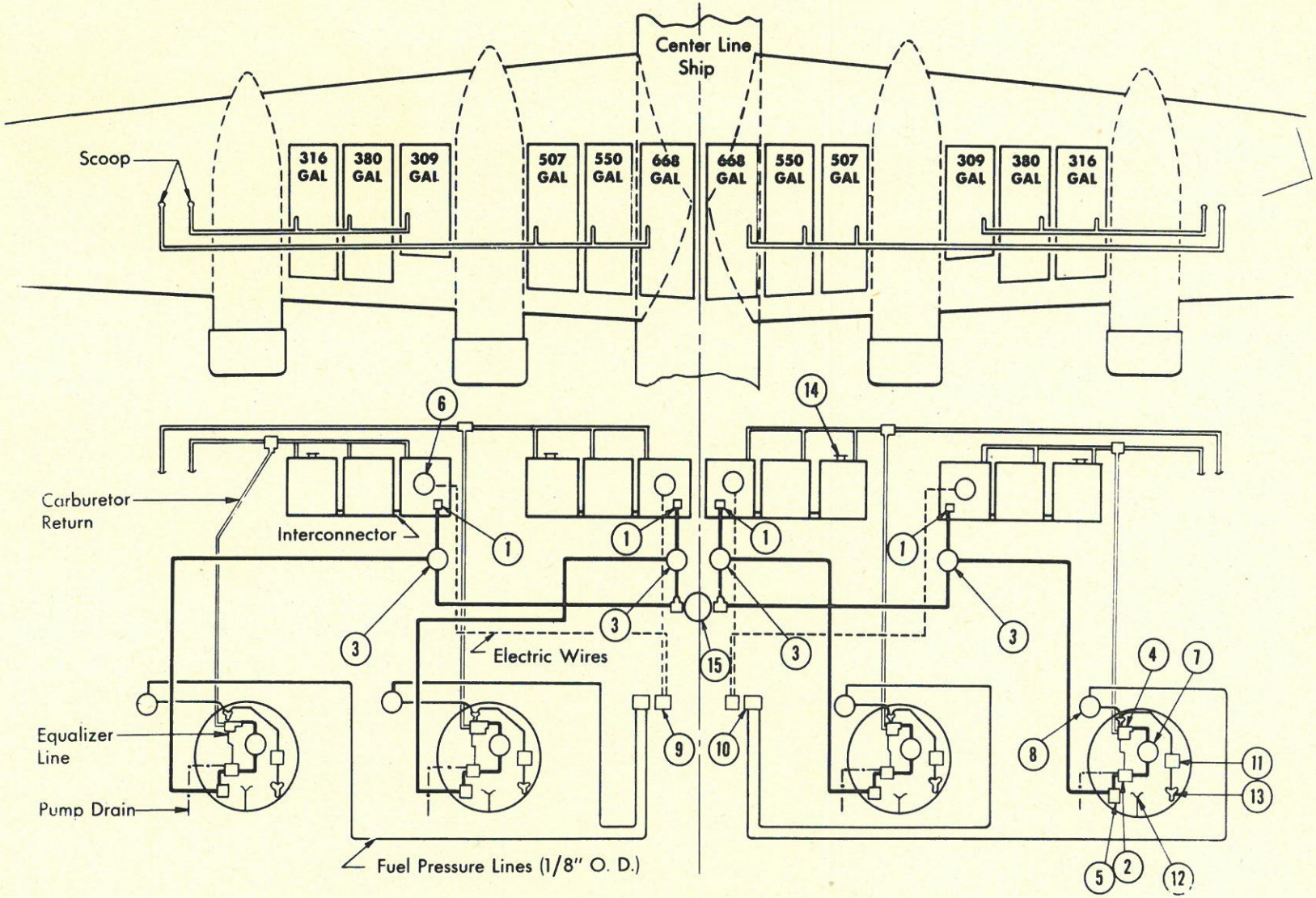


Figure 27 — *Nacelle Oil System*

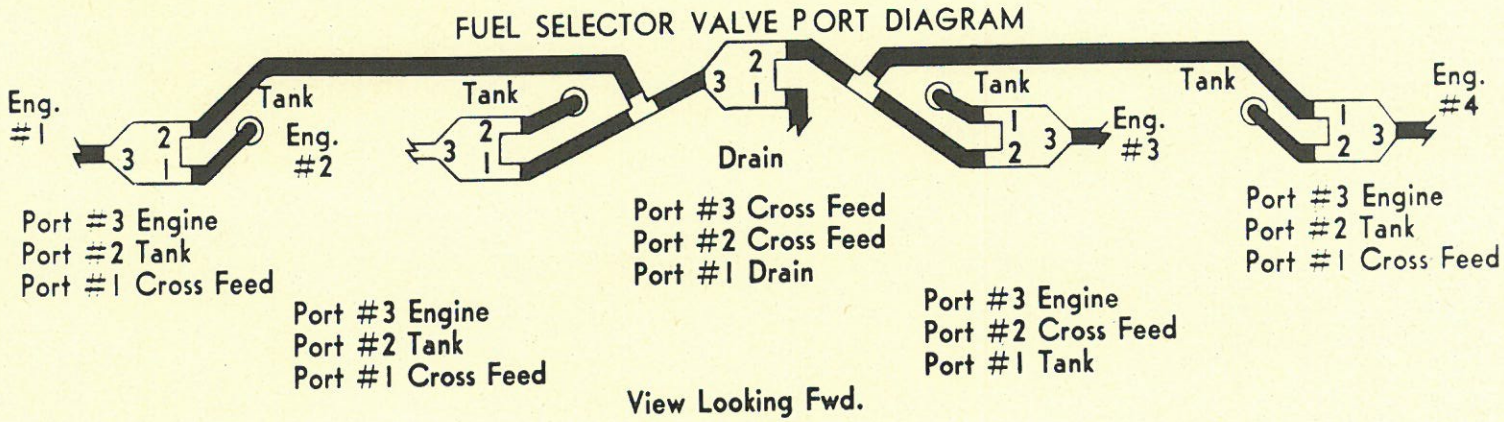


LEGEND

1. Elec. Booster Pump
2. Fuel pump-Eng. Driven
3. Eng. Selector Valve (Solenoid Operated)
4. Carburetor
5. Strainer
6. Liquidometer
7. Flowmeter (First 4 Ships Only)
8. Fuel Pressure Transmitter
9. Fuel Gage (Elec.)
10. Dual Fuel Pressure Gage
11. Oil Dilution Solenoid Valve
12. Blower Case
13. Oil Drain Valve (Ref.)
14. Filler
15. Fuel Drain Valve

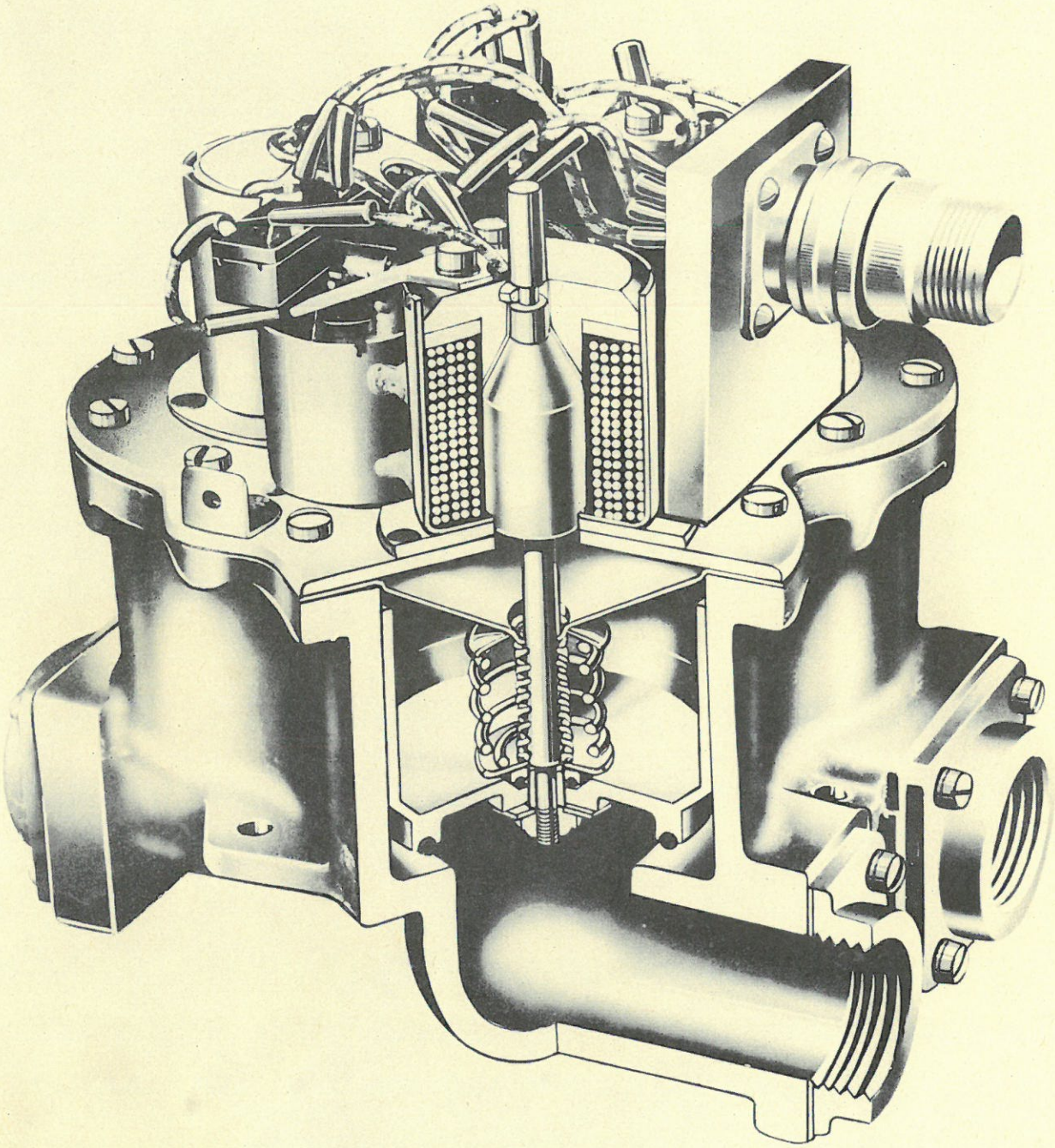
Figure 26 — *Fuel Sytem*

RESTRICTED



B-32 E&M Fig. 438 FUEL SELECTOR VALVE PORT DIAGRAM

RESTRICTED



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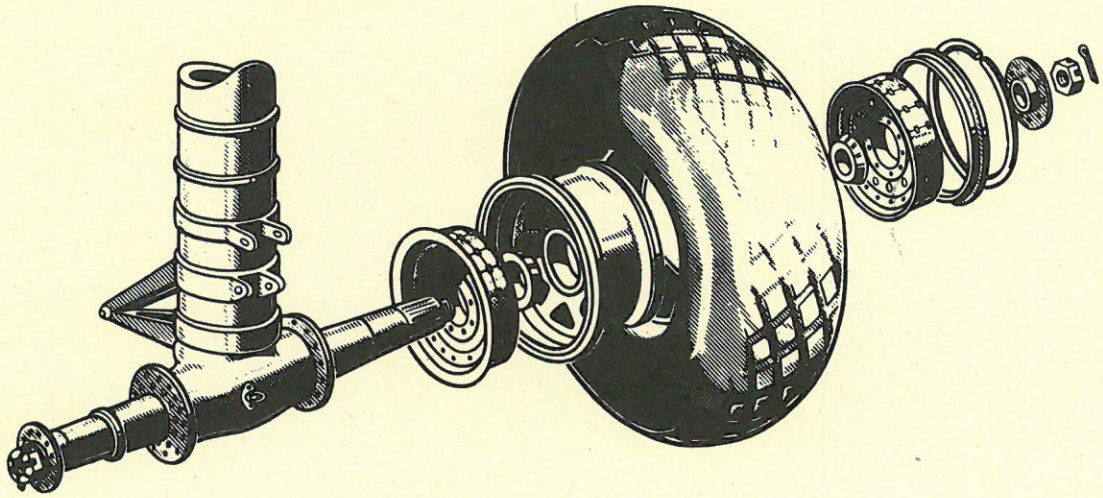
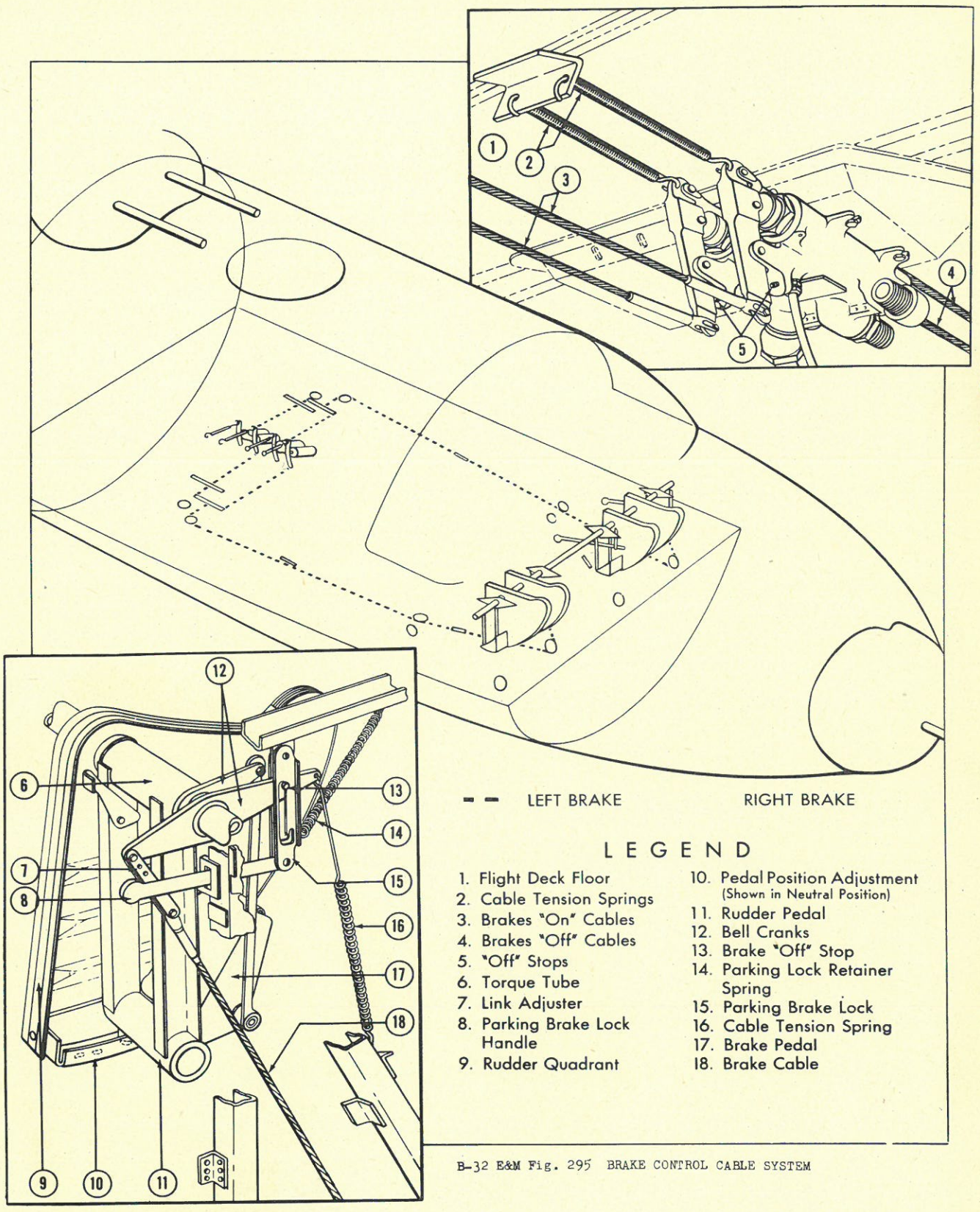


B-32 ~~XX~~ Fig. 76 MAIN ALIGHTING GEAR WHEELS AND BRAKES

RESTRICTED

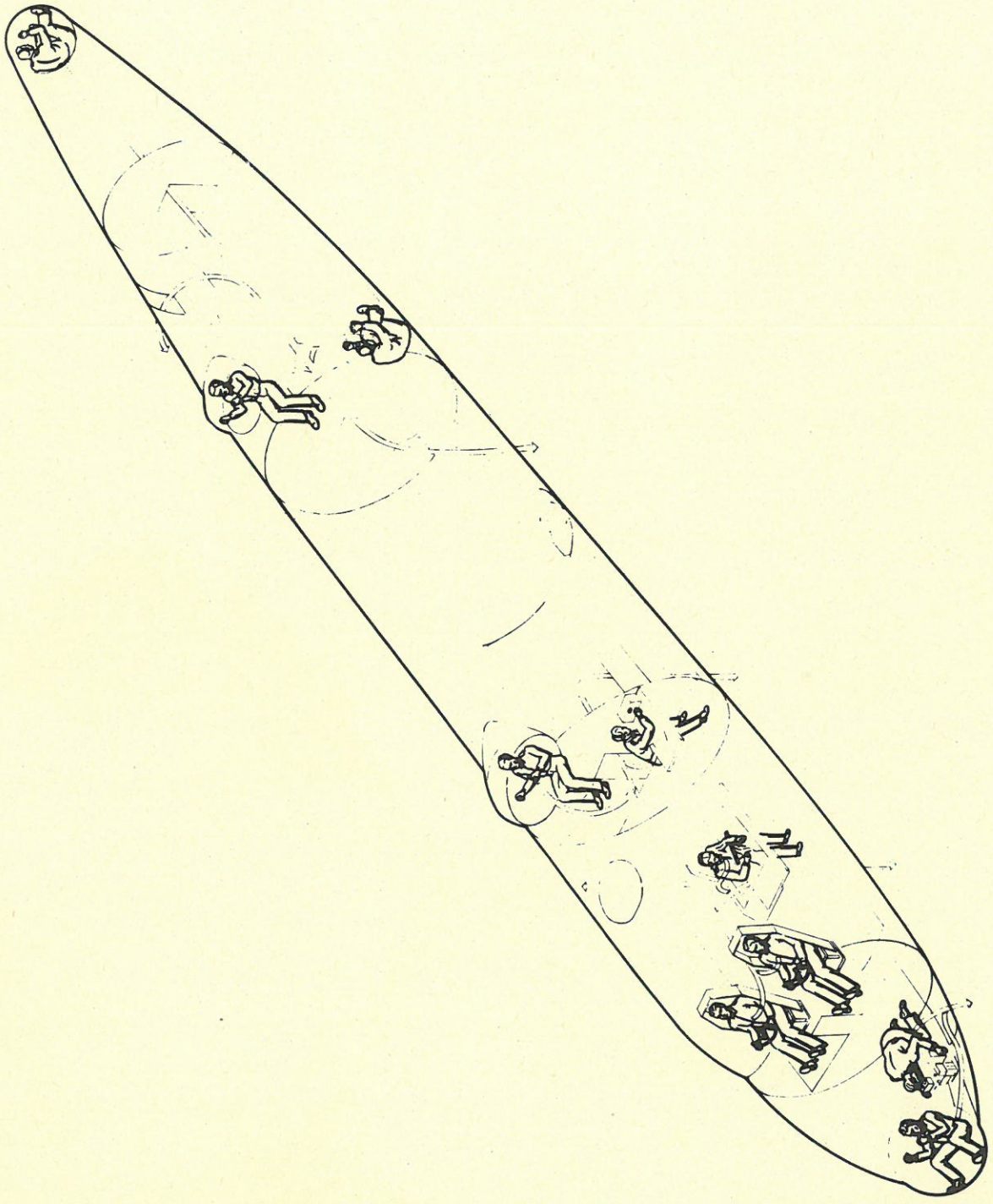


LEGEND

1. Flight Deck Floor
2. Cable Tension Springs
3. Brakes "On" Cables
4. Brakes "Off" Cables
5. "Off" Stops
6. Torque Tube
7. Link Adjuster
8. Parking Brake Lock Handle
9. Rudder Quadrant
10. Pedal Position Adjustment (Shown in Neutral Position)
11. Rudder Pedal
12. Bell Cranks
13. Brake "Off" Stop
14. Parking Lock Retainer Spring
15. Parking Brake Lock
16. Cable Tension Spring
17. Brake Pedal
18. Brake Cable

B-32 E&M Fig. 295 BRAKE CONTROL CABLE SYSTEM

RESTRICTED



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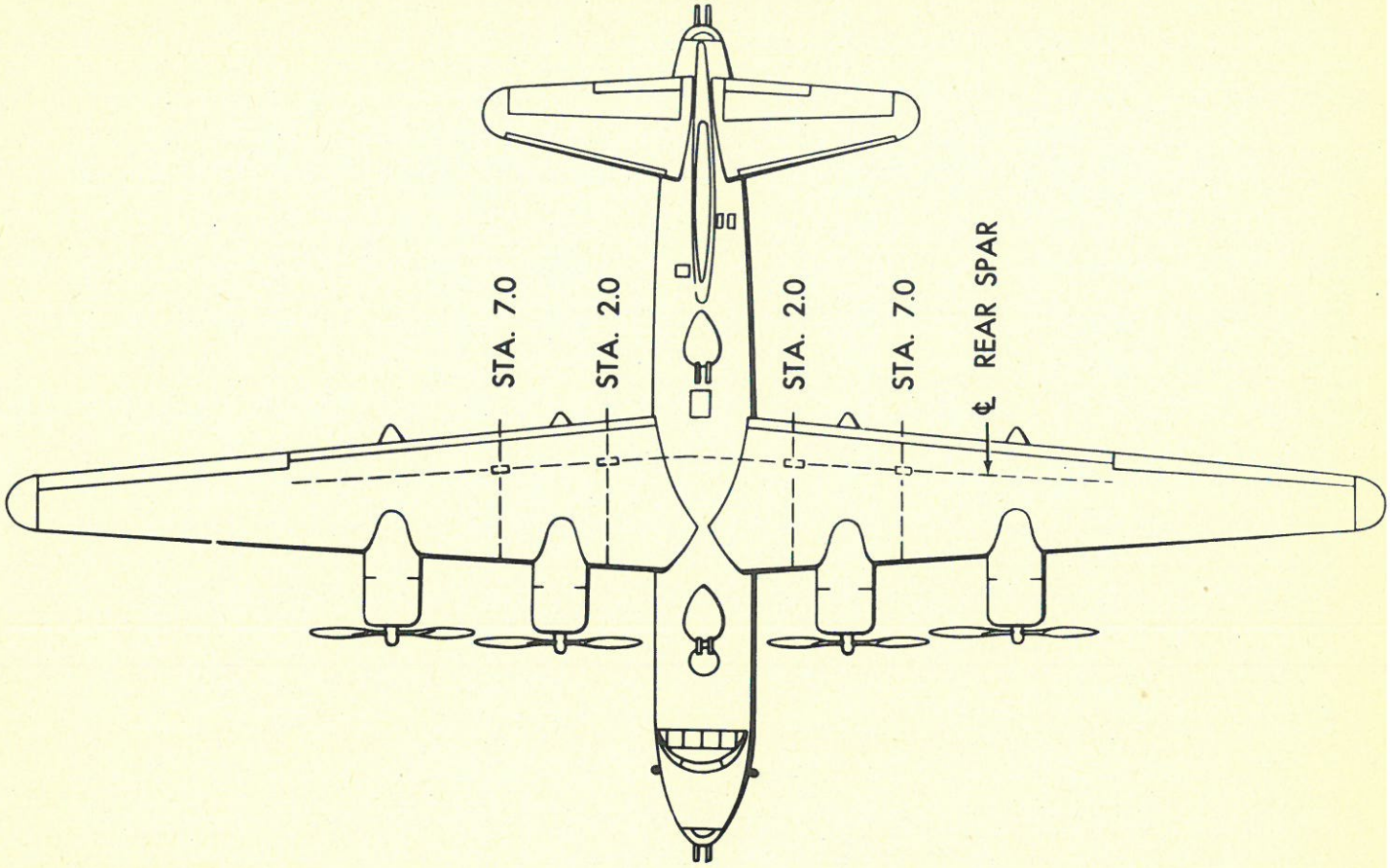

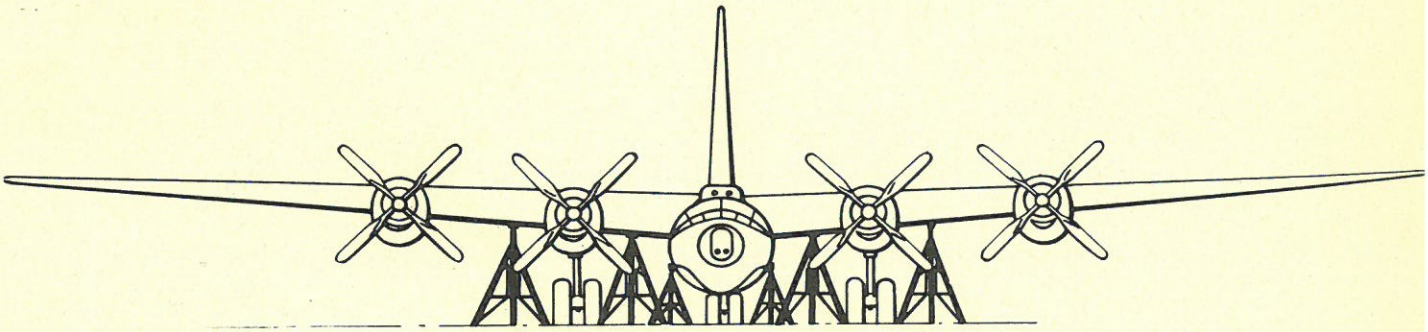

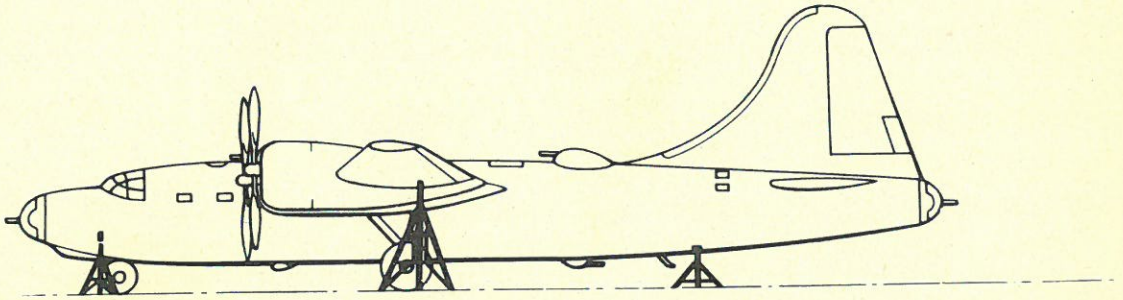

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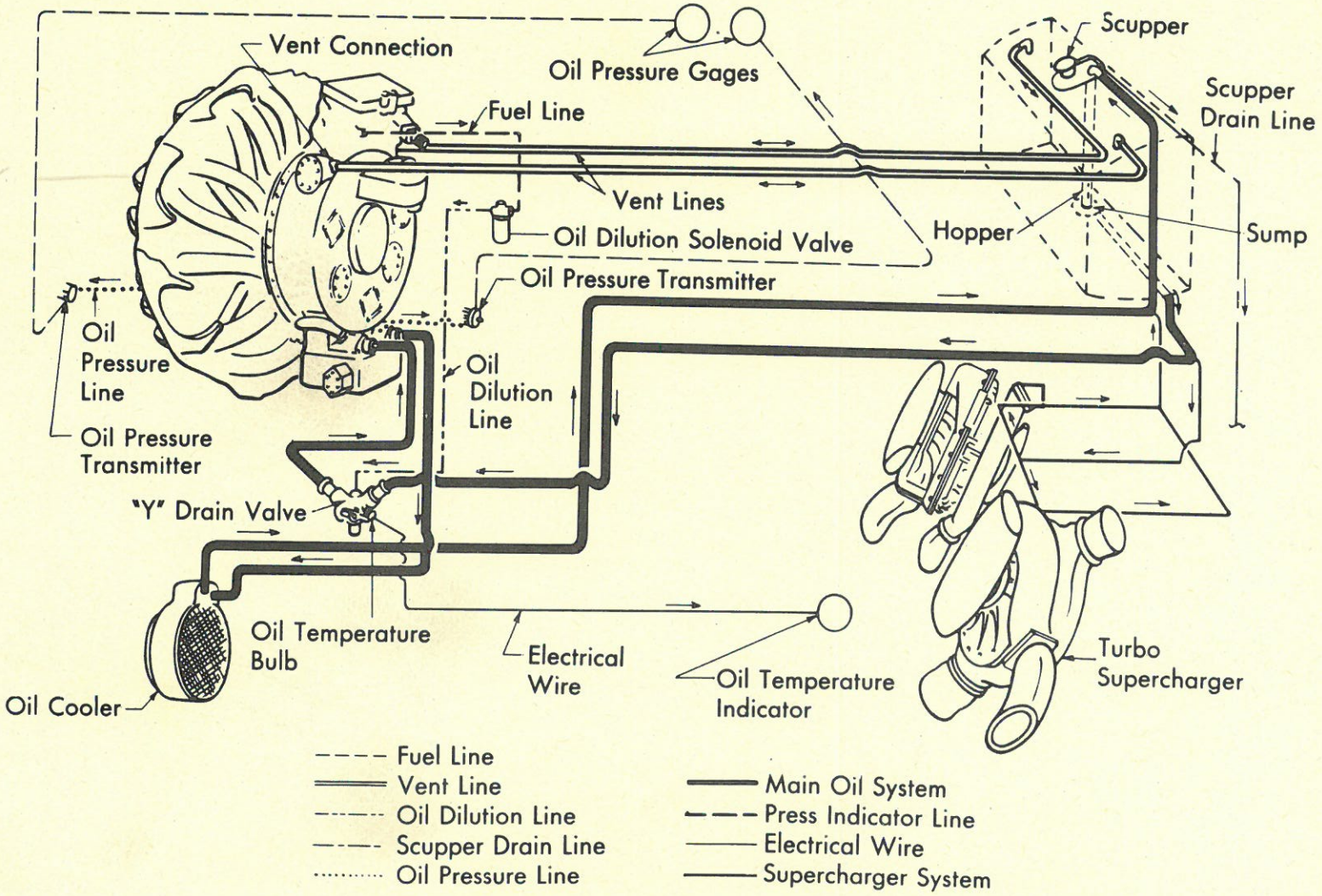

Figure 27 — *Nacelle Oil System*

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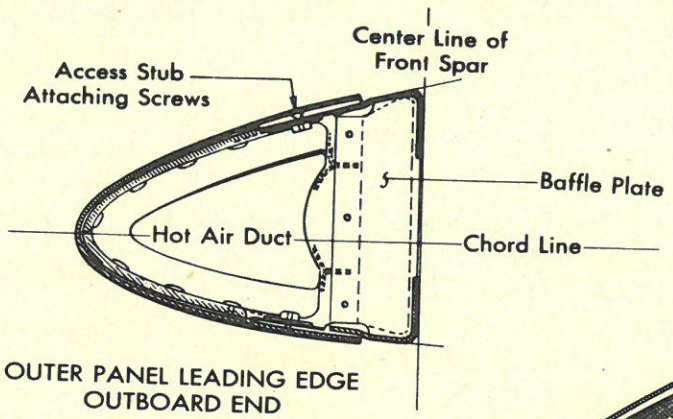
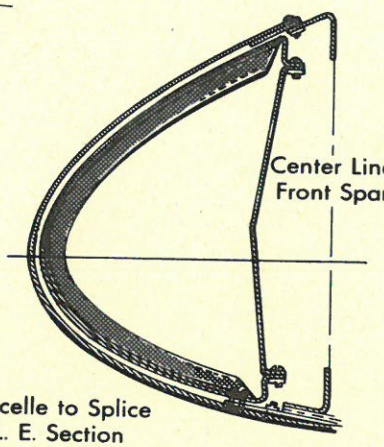
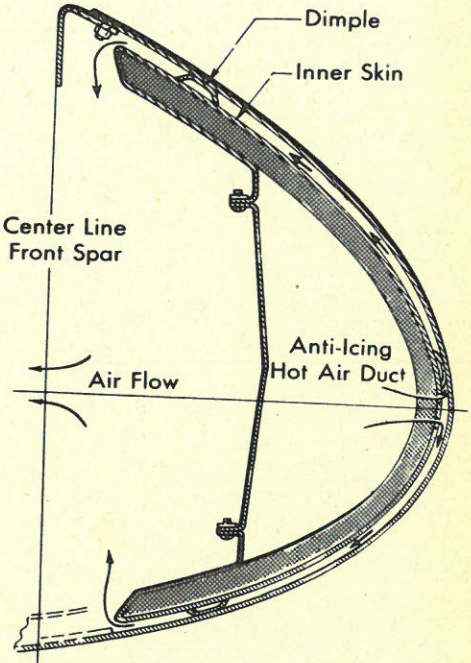


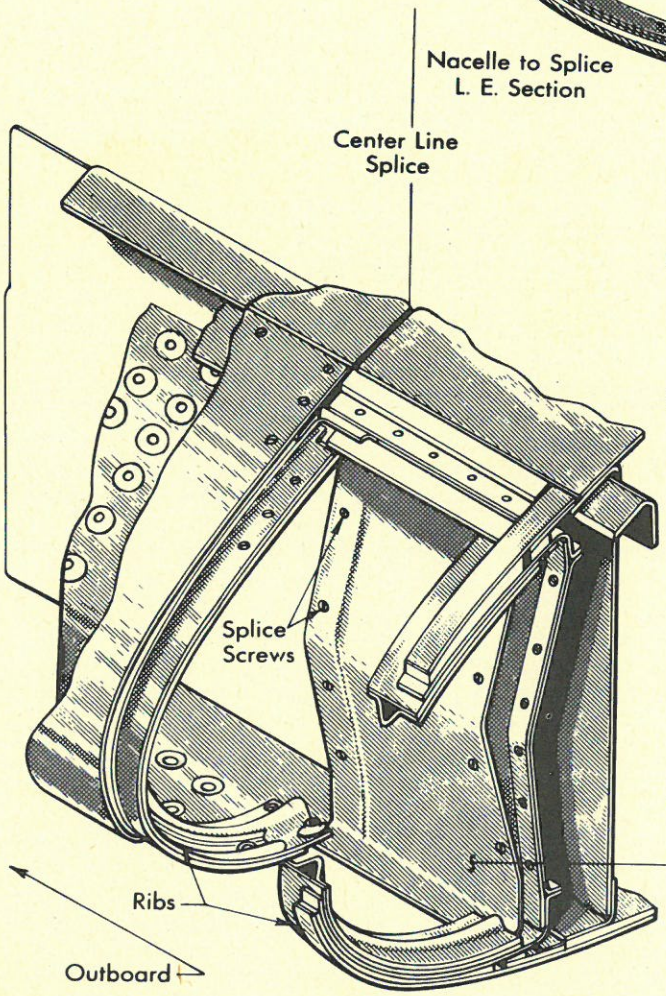
OUTER PANEL LEADING EDGE
OUTBOARD END



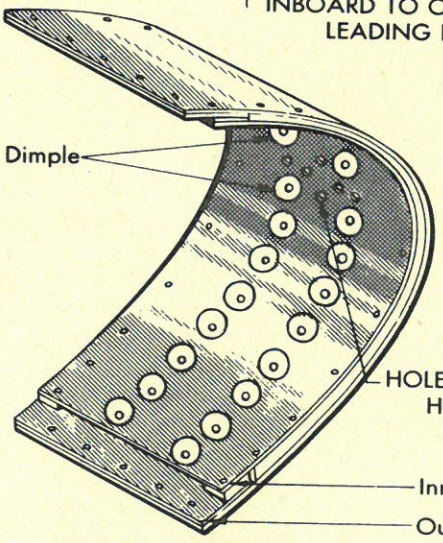


INBOARD TO OUTBOARD NACELLE
LEADING EDGE SECTION

Figure 9 — *Wing*
Leading Edge Sections



LEADING EDGE STUB
AT OUTER PANEL SPLICE



REMOVABLE NOSE SECTION FOR ACCESS
TO SPLICE SCREWS

FW-0174

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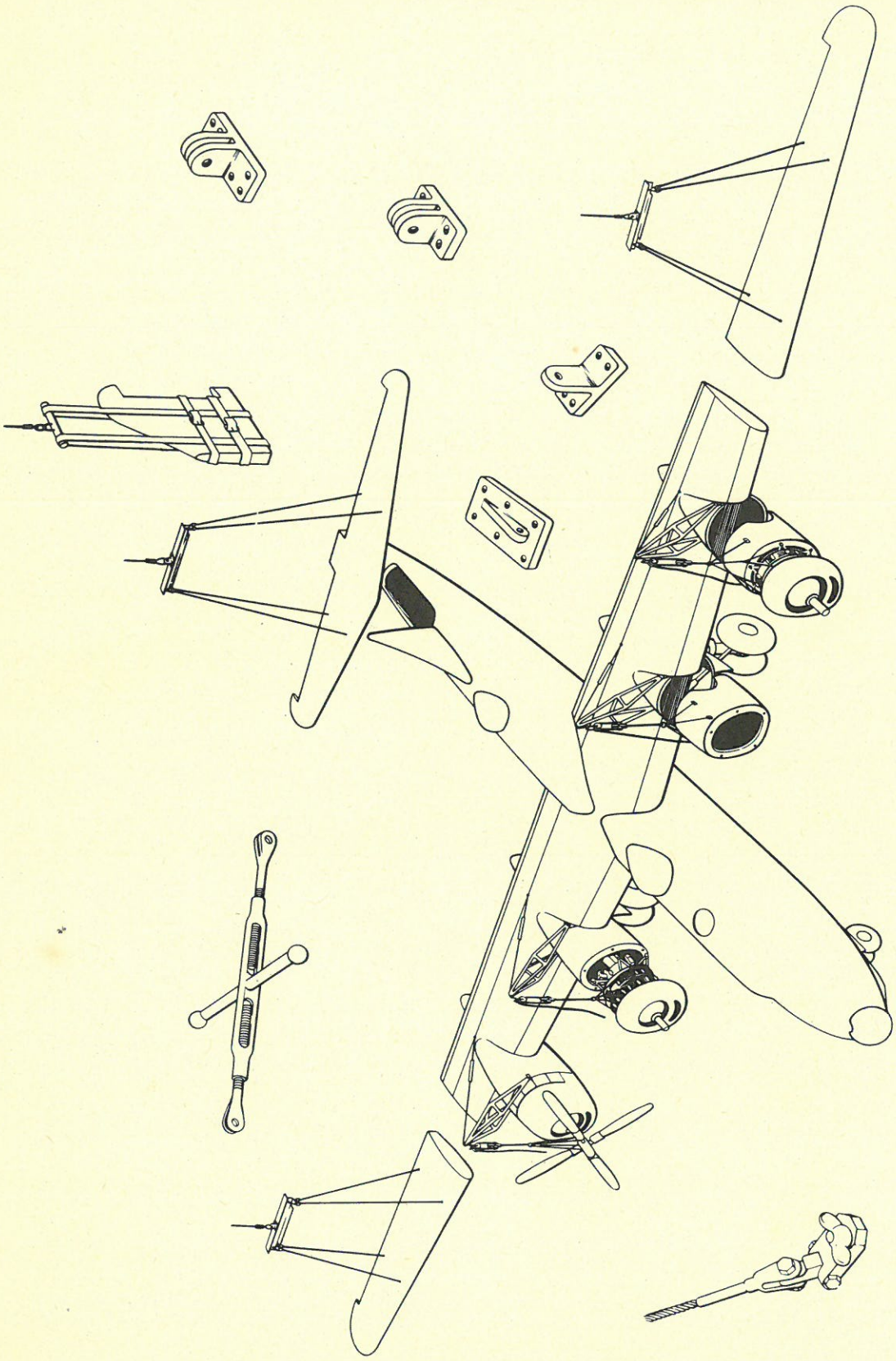

FW 0194

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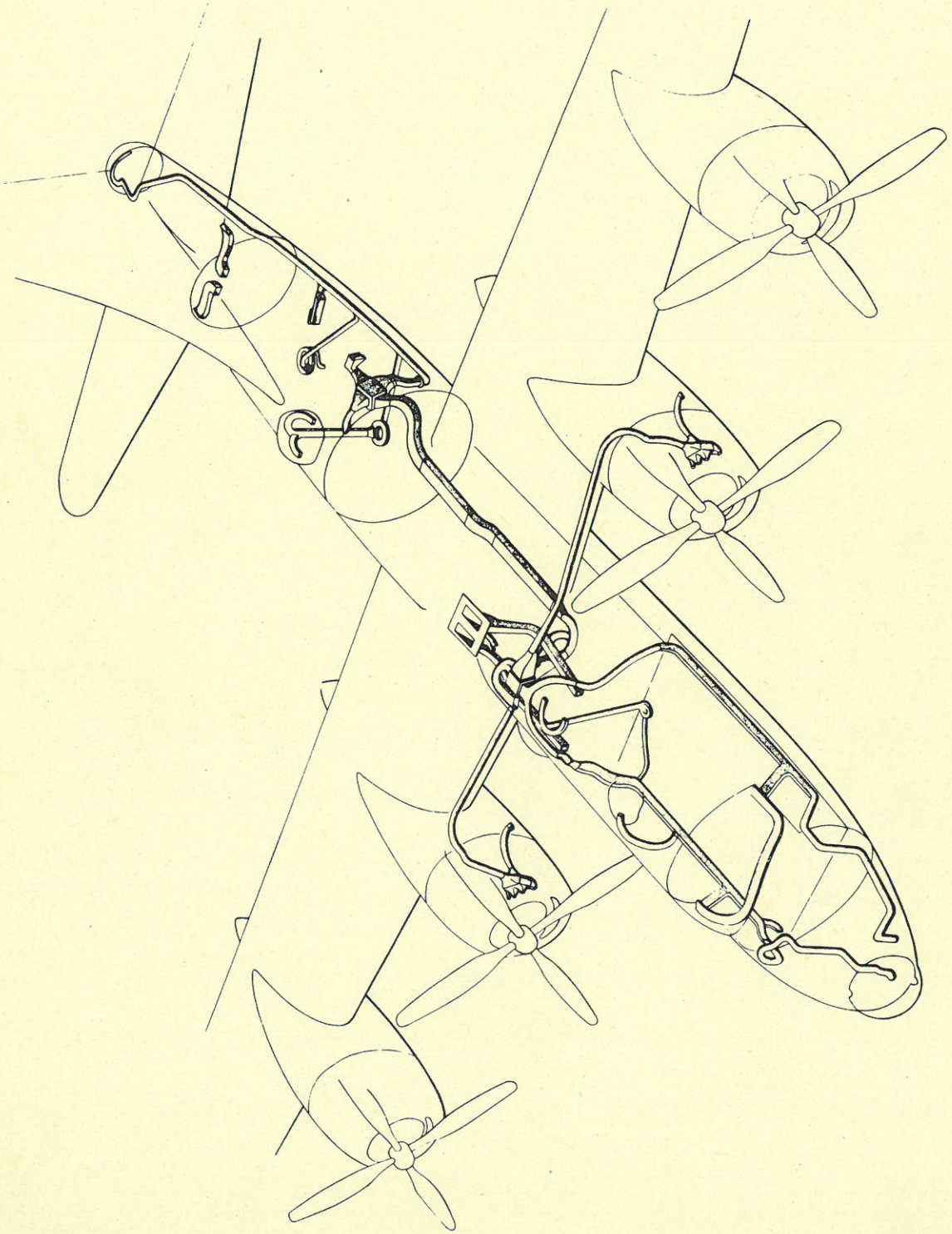

FW-796